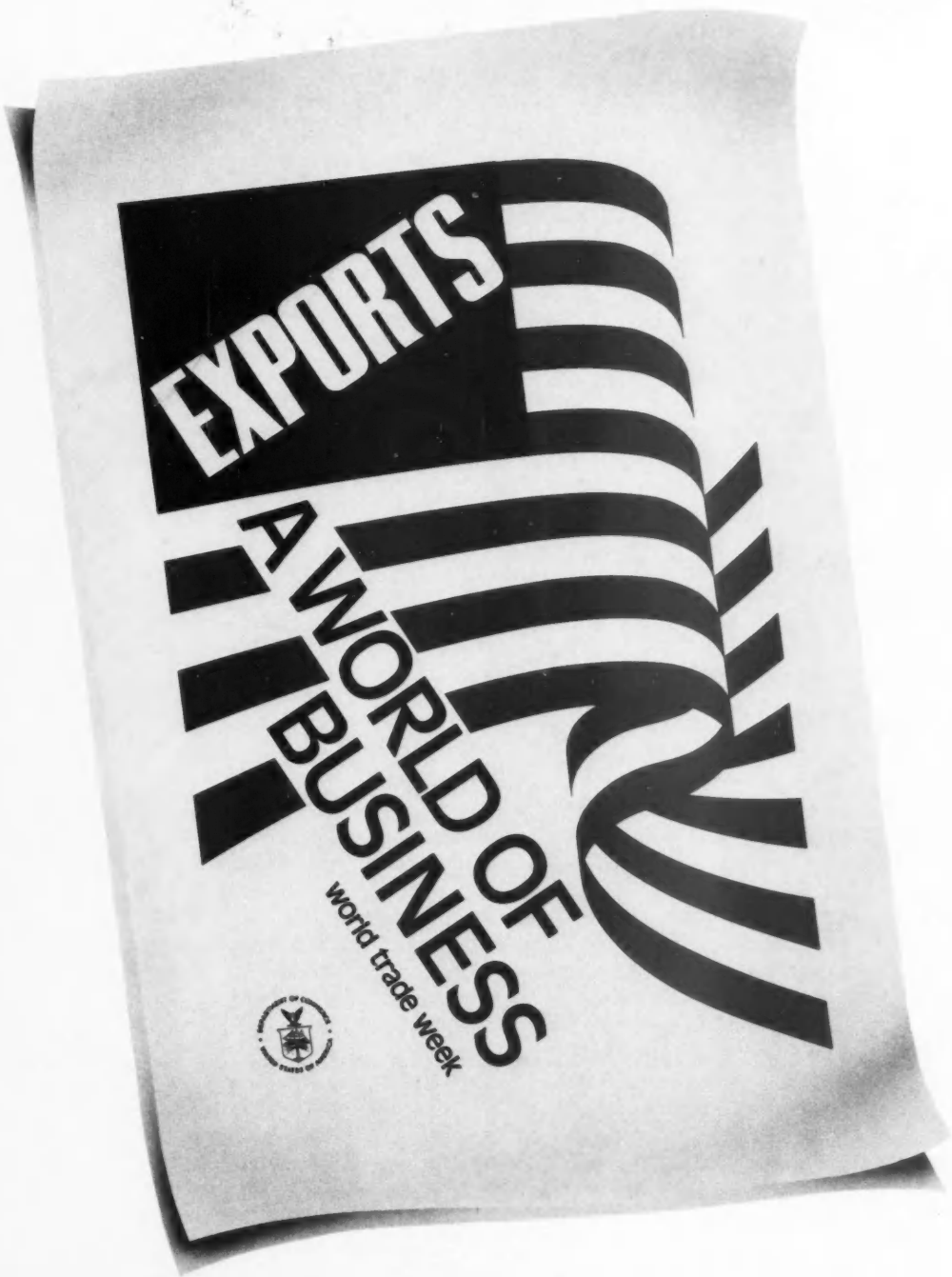
MAY 13, 1974

Commerce Today



FROM THE SECRETARY

Reflections On World Trade Week

A great many Americans regard world trade as an esoteric subject involving high finance, international treaties and the complexities of floating currencies—in short, an activity that does not affect them and about which they need not be concerned.

Included in this category are U.S. businessmen, explaining perhaps why 92 percent of our manufacturers do not export their goods.

But the end result of world trade, despite its more arcane financial aspects, can be deciphered into something that everyone can understand: jobs, industrial growth, prosperity and tax revenue for communities of all sizes in all parts of the country.

It can be the difference between employment and unemployment for thousands of workers, the difference between profit and loss for hundreds of businesses, and the critical difference between holding or losing the opportunity to buy whatever we need and want from any part of the world.

In his proclamation on World Trade Week 1974, May 19-25, President Nixon focused on how critical world trade has become to our well-being when he said: "Large and small nations around the globe seek solutions to unprecedented problems of energy. How we and they react could have a lasting impact on international commercial relations."

The energy equation has highlighted the interdependency of relationships between countries, and multiplied the number of nations that must depend on other nations not only for this resource, but many other raw materials.

Until "Project Independence" comes to fruition, we must import a sizable portion of our oil and gas needs. In addition, we must continue to import a wide range of minerals and other products to fire our industrial machine. In certain cases we are almost entirely dependent on foreign sources for some of these materials. The only way to earn the foreign exchange required to purchase these vital supplies is through exports.

Viewed in this perspective, world trade unquestionably is a bread-and-butter issue for all Americans.

It is why this Admininstration assigns a high priority to its Trade Reform Act now before the Congress—a proposal designed to assure American products fairer treatment and greater access in the world marketplace.

Passage of the Act would give the United States the authority it needs for participating in the forthcoming round of multilateral trade negotiations, negotiations that should bring about substantial expansion of world trade through increasing access to both markets and supplies.

The Trade Reform Act would strengthen our hand in the effort to reduce or remove such artificial trade barriers as tariffs, quotas and embargoes. It would provide authority to deal with unfair or unreasonable trade practices of countries that discriminate against American products. It would provide improved relief measures for our manufacturers and workers who suffer from unfair or injurious foreign competition.

With this proposed trade tool, the President also seeks significant expansion of our trade with the non-market economy countries of the Soviet Union and Eastern Europe so that American manufacturers do not forfeit the business those countries generate, and U.S. workers do not lose the potential jobs that would be created by such commerce.

The socialist countries are eager to strengthen their commercial ties with us. Such ties will not only mean an increase in business and jobs for America; they will also improve our trade account and give us access to new sources of vitally needed raw materials and energy resources.

World Trade Week this year takes on a more imperative appearance than ever before. It is a time not only to consider the economic benefits that flow from international commerce, but also to view it from the vantage point of its contributions to improved international communications and an enduring peace. As the President pointed out in his proclamation, "Fair, open trade can contribute importantly to stability and harmony in the world, reducing the causes of international friction." That is why he also observed it is important not only to the United States but to all nations.

Frederick B. Dent

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COVER: *In preparation for World Trade Week, May 19-25, 30,000 copies of this export promotion poster have been distributed throughout the nation where various communities have scheduled annual observances. Details begin on Page 5. A calendar of World Trade Week events is on Page 31.*

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Reconciliation Of U.S.-Canada Trade Figures Helps Reduce Confusion In Economic Relations

Economic Highlights is prepared by Dr. Sidney L. Jones, Assistant Secretary of Commerce for Economic Affairs.

For many years the growing discrepancy between U.S. and Canadian estimates of the bilateral trade statistics unfortunately confused economic relations. Important negotiations were affected by the apparent contradictions in the trade figures reported by the Bureau of the Census and Statistics Canada, two of the most respected government organizations in the world.

In December 1971 the Secretary of Commerce and Canada's Minister of Industry, Trade and Commerce agreed to create a joint committee to consider the complex issues. The new United States—Canada Trade Statistics Committee was charged with: (1) reconciling the existing differences in the export and import figures reported by each nation; (2) monitoring future trade statistics; and (3) exploring the feasibility of harmonizing the conceptual methods used by each nation in compiling trade statistics and of eventually exchanging import data as a means of reducing the reporting burden for exporters. The Committee is chaired by the Assistant Secretary for Economic Affairs and the Chief Statistician of Canada.

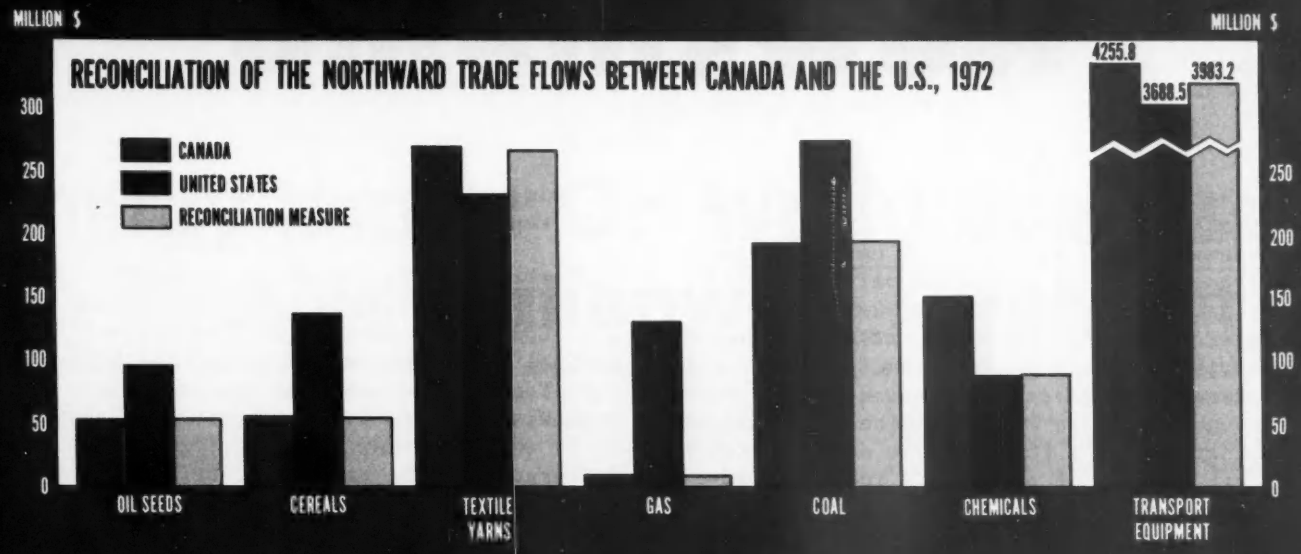
In January 1973 the first set of reconciled figures, covering the calendar year 1970, was released. The United States had previously reported a merchandise trade deficit with Canada of $2,008 million based on exports of $9,084 million and imports of $11,092 million. However, Canada had recorded a surplus of only $1,036 million for its bilateral trade with the United States and wide differences in the export and import values existed. The final reconciliation indicated a U.S. deficit of $1,424 million resulting from exports of $9,148 million and imports of $10,572 million. Subsequent efforts resulted in a November 1973 announcement of reconciled trade figures which reported U.S. deficits of $1,450 million in 1971 and $1,548 million in 1972.

Prior to the reconciliation, both nations had announced widely divergent estimates of the size of the U.S. deficit. Finally, on May 3, 1974, a joint press release announced a preliminary reconciliation of the 1973 merchandise trade statistics, reporting a $1.2 billion U.S. deficit, compared to a Canadian value of $0.6 billion and a U.S. figure of $2.6 billion. This recent announcement was particularly impressive because it demonstrates that the years of hard work involved in developing procedures and communication now make it possible to prepare relatively current estimates to improve planning efforts.

The key factor in the successful reconciliation exercise was the decision to analyze each specific commodity classification in great detail. Such analysis indicated that divergent figures could be the result of many different influences and the disparities could amount to millions of dollars in some important categories. Nevertheless, in every instance the careful work of the analysts was successful in explaining the differences so that a properly reconciled figure could be developed.

The major reason for discrepancies involved conceptual differences in how trade statistics should be defined and recorded. It was decided that these conceptual differences would be resolved by adopting balance of payments principles for adjusting the trade flows. Other major discrepancies resulted from: (1) the use of customs valuations for valuing imports even though these figures are often higher than actual transaction prices; (2) the undercounting of exports which are not as tightly monitored as imports; (3) Canadian trade statis-

TRADING VIEWPOINTS—*A handshake by the U.S. Secretary of Commerce and the Chief Statistician of Canada symbolizes reconcilement of current account balance of payments figures published by the two countries. A similar signing ceremony was held after the reconcilement of trade statistics. From left to right: Dr. George Jaszi, Director of the Bureau of Economic Analysis; Dr. Joseph W. Duncan, Deputy Associate Director for Statistical Policy, Office of Management and Budget; Secretary Frederick B. Dent; Dr. Sidney L. Jones, Assistant Secretary of Commerce for Economic Affairs; Jacob Ryten, Director of External Trade, Statistics Canada; Chief Statistician Sylvia Ostry; Keefe McAlister, Chief of Balance of Payments Division, Statistics Canada; and Leonard R. Jackson, Chief of Foreign Trade Division, Bureau of the Census.*



Reconciliation of U.S. and Canadian Trade Balance
(Millions of U.S. Dollars)

Direction of Trade Flows	1970			1971			1972		
	Canada	U.S.	Reconciled Figures	Canada	U.S.	Reconciled Figures	Canada	U.S.	Reconciled Figures
Northward	9,486	9,084	9,148	10,841	10,365	10,567	13,042	12,415	12,637
Southward	10,522	11,092	10,572	11,913	12,691	12,017	14,056	14,907	14,185
Canadian Surplus (U.S. Deficit)	1,036	2,008	1,424	1,072	2,326	1,450	1,014	2,492	1,548

Source: The Reconciliation of U.S.-Canada Trade Statistics: 1971 and 1972.
A report by the U.S.-Canada Trade Statistics Committee, December, 1973.

tics do not include exports to and imports from Puerto Rico; (4) U.S. import figures from Canada include only goods of Canadian origin and returned U.S. goods but Canadian export and re-export figures include goods of origin assigned from Canada to the United States; (5) certain transportation charges are sometimes erroneously included; (6) errors and omissions result from lost or delayed receipt of trade documents; (7) U.S. exports to Canada include grains shipped to Canadian storage warehouses pending transshipment to other nations; (8) the treatment of natural gas moving from western to eastern Canada through pipelines that cross over the border into the north central states; and (9) certain adjustments to tooling and parts valuations involving the transportation equipment sectors. Some of these problems are of grain and natural gas transactions—while other conceptual differences will remain.

The statistical accomplishments discussed above may not seem to be particularly important until it is recognized that positive economic relations and realistic negotiations must be based on good information and mutual trust. Divergent statistics create confusion even though each figure may be correct according to the concepts used in different statistical agencies. Developing accurate bilateral trade figures for the United States and Canada is particularly important because we have more trade with them than any other nation and we are their largest trading partner.

The successful reconciliation of U.S.-Canada trade statistics has also created many other desirable results. First, it is an excellent example of cooperation and professional competence involving the economists and statisticians of the Foreign Trade Division of the U.S. Bureau of the Census and the External Trade Division of Statistics Canada. Second, it provides a working model for reconciling trade statistics with our other major trading partners. Third, statistical reports should now rely upon the reconciled figure for trade balances to minimize confusion even though the national figures may still be used for certain historical comparisons. Fourth, other bilateral statistics may also be improved using this effort as a guide. For example, U.S. and Canadian officials met in Washington, D.C., in early March to approve a reconciliation of bilateral balance-of-payments figures for the current account. Finally, the mutual respect and helpful exchange of information will benefit both nations in improving a variety of statistical programs. This experience clearly demonstrates that we can learn from each other.

Newsmemo

Will a new international Trademark Registration Treaty flood this country with trademarks from abroad, some never intended for use? That is a comment being heard by the Patent Office from U.S. businessmen and lawyers about the proposed treaty. It would ease the strict U.S. law principle that trademark rights can be acquired only through use. The Patent Office is urging further study by the U.S. bar and industry of all aspects of the treaty including advantages and disadvantages. It welcomes comments by both individuals and organizations, deadline Sept. 1.

Also on the worldwide drawing board is a Patent Cooperation Treaty--still about two to three years away, in the opinion of Patent Commissioner C. Marshall Dann. The sooner the PCT comes into being the better, says Dann, because: 1) its uniform application format will make it easier to seek offshore patent protection; 2) an additional eight-month option period on deciding whether to seek foreign protection will be valuable; 3) new international search reports will assist the U.S. Patent Office in examining applications from abroad.

Eximbank is being placed squarely in the midst of the U.S. export growth picture by current conditions. Important now are the high-technology, big-ticket capital equipment projects in which the U.S. has comparative advantages. This type of equipment is particularly dependent on Eximbank financing, since it is usually sold on payment terms of five years or more. Also, Eximbank financing can face competition in the international arena, through its current 7 percent rate which comes to an average of 8 to 8.2 percent when combined with private bank funds.

Maine businessmen have a sales crew of 50 officers and 270 midshipmen now offering their wares abroad. The innovative venture is a part of the spring training cruise of the Maine Maritime Academy's State of Maine which has stops in Glasgow, Helsinki, Leningrad and Antwerp. The ship has exhibits of manufacturers and foodstuffs produced in Maine. In each port local businessmen will be welcomed to view the displays and talk with representatives of Maine firms.

A breakout for minority business. That is one way to view the participation of L.C. Cox of Los Angeles in Commerce's Biomedical Equipment exhibition at the Milan U.S. Trade Center next month. Minority businesses in the U.S. are very much a minority when it comes to exporting--few have ventured into the ranks of foreign traders. The company Cox heads, International Biomedical Associates, Inc., will represent three southern California producers of hospital and medical equipment in an effort to win sales in Italy and southern Europe.

The newest U.S. port of entry--on which coast? None. It's Wichita, Kansas, deep in the Nation's heartland. A port of entry is a Customs Service facility. The latest of nearly 300 is at the Wichita airport, where it can process shipments arriving by plane or by bonded containers that move through coastal or border points to Wichita-area destinations. Customs officials are there to reduce delays and cut expenses for about 100 local industries now engaged in international trade.

"Small Business Problems in Today's Environment" is the theme of the Seventh Annual Subcontracting Conference scheduled May 22 at Washington's Statler-Hilton Hotel as part of National Small Business Week. Approximately 500 government and industry leaders are expected to take part in discussions. The conference is sponsored by the U.S. Small Business Administration, the Aerospace Industries Association, the Electronics Industries Association, and the National Security Industrial Association. Speakers include Senator William D. Hathaway, Select Committee on Small Business; Harold Guller, president of Essex Cryogenics; John H. Stendor, Administrator, Occupational Health and Safety Administration; Robert J. Brown, Associate Manpower Administrator, U.S. Employment Service; Philip Essley, Deputy Administrator, Federal Energy Office; and Cecil Brownlow, Executive Editor, Aviation Week and Space Technology magazine.

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Energy Impact On World Business To Receive Nationwide Attention

Americans who have learned to share concerns about energy resources with their fellow countrymen are being asked this month to consider the energy impact on worldwide economic conditions.

It will happen next week—World Trade Week—as the exporting and shipping communities across the nation turn the attention of business and civic groups to trade issues. In 1974 these are intertwined with energy issues.

President Nixon stated it in summary form in his World Trade Week proclamation when he commented that current efforts by all nations to solve their energy problems "could have a lasting impact on international commercial relations."

The President also noted that a "thoroughgoing reform" of the international economic system is needed at this time, and that progress on worldwide trade negotiations is thus of great current importance.

A number of major regional trade conferences, to be held during World Trade Week, will focus on these subjects. Among these conferences are the 29th Cleveland World Trade Convention; the 9th Ohio Valley International Trade Conference at Dayton; the 18th Tri-City World Trade Conference at Buffalo, N.Y., with shared participation by Rochester and Syracuse; the 10th Wisconsin International Trade Conference at Milwaukee; the 7th New Jersey World Trade Conference at Clark, N.J.; the Upper Midwest World Trade Conference at Minneapolis; and statewide conferences for Iowa, South Carolina and Florida at Des Moines, Charleston and Miami, respectively.

Commerce Secretary Frederick B. Dent will place international economic and commercial considerations before the Washington newsmedia corps in an address May 20 to the National Press Club. (See also Secretary's message on inside cover.)

Conferring of the Presidential "E" Award for excellence in exporting will be a part of the trade week observance in Cherry Hill, N.J., where the A.C. Manufacturing Co., a producer of process cooling equipment for computers, will be honored, and in Cleveland, where the Cauffiel Machinery Co. of Toledo will get the "E" flag during the World Trade Convention.

Other special events include a downtown parade in Cleveland, dedication of new air cargo facilities in Portland, Ore., a trade exposition with displays from many countries at Hempstead, L.I., and a show of fashions from Canada and the Orient in Kansas City.

Under Secretary of Commerce John K. Tabor is the speaker at the annual Dallas World Trade Dinner, at which the Dallas Market Center will honor the exporter and importer of the year. The city's Chamber of Commerce, Council on World Affairs and International Trade Association share sponsorship of the dinner.

In Los Angeles, where the annual U.S. trade week observance had its inception in 1927, Assistant Secretary of Commerce for Domestic and International Business Tilton H. Dobbin will address a trade conference co-sponsored by the Export Managers Association of Southern California and the state Department of Commerce.

Dobbin will make another trade week address in California, at a conference in Sacramento co-sponsored by the state Department of Commerce and the California Chamber of Commerce.

Among other events in the West are an "Exporter of the Year" presentation in Portland, Ore., followed by dedication of new air cargo facilities and open house at the Portland International Airport, and later the conferring of an "Old Salt" award at a maritime conference.

In San Francisco the World Trade Club will present its "International Achievement Award for 1974" to William M. Allen, chairman emeritus of the Boeing Co.

San Diego's Chamber of Commerce is sponsoring a World Trade Week luncheon on May 20, and co-sponsoring with the Propeller Club a May 22 maritime luncheon.

Nevada is emphasizing the tourism aspects of world trade in two events, in Carson City and Las Vegas.

Arizona is having a World Trade Week International Party at Scottsdale, sponsored by the Arizona World Trade Association. Consular corps officials in Arizona are providing displays, and there will be awards to the state's top manufactured products and agricultural exporters, and a "Man-of-the-Year" award. Denver will center its trade week observance on East-West trade.

In Hawaii the state's World Trade Association, Bankers Association and International Services Agency are getting together with the U.S. Department of Commerce and the Eximbank at a seminar on financing for exporters. R. Alex McCullough of the Eximbank is the featured speaker.

In the Southwest, in addition to the Dallas observance, Odessa, Tex., will have a

President On 1974 World Trade Week

Calling upon Americans to observe the week beginning May 19 by "participating with the business community and all levels of government in activities that emphasize the importance of world trade to the United States economy and to our relations with other nations," President Nixon made these observations:

As we approach the midpoint of the 1970's there are many problems which command the attention of the world's peoples.

Large and small, nations around the globe seek solutions to unprecedented problems of energy. How we and they react could have a lasting impact on international commercial relations. Moreover, the need for thoroughgoing reform of the international economic system has never been more acute.

The challenges are thus great, but the opportunities are even greater.

To meet those challenges and realize these opportunities, we need to move rapidly and confidently forward with a series of interrelated negotiations, of which those on trade reform are of vital importance.

World trade is important not only to the United States but to all nations. Fair open trade can contribute importantly to stability and harmony in the world, reducing the causes of international friction.

World Trade Week is an opportunity to recall this importance to all Americans and to renew our sense of national dedication to the success of this effort.

SYMBOL OF WORLD TRADE—*Presidential "E" for Export Excellence flag is raised at Hydro Products plant in San Diego last fall as a sign to the community at large of the firm's efforts to expand U.S. trade overseas. World Trade Week celebrations this month carry a similar message.*

trade seminar at which Joel B. New, who directs Commerce Department's Office of Field Operations, will be the featured speaker. A trade seminar in Oklahoma City will be developed around the Commerce Department's Global Marketing Program. There will be an all-day workshop at the University of Houston just after World Trade Week, co-sponsored by the U.S. Department of Commerce, the Small Business Administration, the Texas Manufacturers Association and the university.

Trading with Canada and with the Far East are being highlighted in the Kansas City area, with the International Trade Club of Greater Kansas City and the Commerce Department District Office leading the way.

The Alberta Department of Industry and Commerce is conducting a seminar in the new underground quarters of the Great Midwest Corporation's International Trade Center. The Canadian Consul General in Chicago is playing host at a reception at the Nelson Art Gallery. A fashion show will feature Canadian and Far Eastern creations.

Ambassador James C. H. Shen of the Republic of China and Assistant Secretary of Commerce for Economic Affairs Sidney L. Jones are the featured speakers at the Kansas City International Trade Club's banquet. Kansas City, Kansas, will have an International Trade Fair.

Assistant Secretary Jones will also be the major speaker at the St. Louis observance, which is being co-sponsored by the World Trade Club, Regional Commerce and Growth Association, Traffic Club, Propeller Club, and the U.S. Department of Commerce. A delegation of Mobile, Ala., businessmen will be honored at a Port of Mobile Night. Six area banks will have displays of "Made in St. Louis for Export" products. The May issue of "Commerce" Magazine, published by the Regional Commerce and Growth Association, has a global theme.

In the South and Southeastern areas, Memphis is leading off with World Trade Day on May 13, an early scheduling to coincide with the Mid-America Exposition at the new Cook Convention Center. The exposition includes a Mid-America International Trade Exhibit sponsored by the World Trade Council of the Memphis Area Chamber of Commerce. Owensboro and Bowling Green, Kentucky, will have export conferences.

In Alabama, festivities will center on a World Trade Day reception and dinner in Mobile. Georgians will participate in observances in Atlanta, Columbus, Augusta and Savannah. Alan Polansky of Commerce Department's Bureau of Resources and Trade Assistance will speak in the latter two cities.

In Florida, the Governor's Conference on International Trade will be held May 22-23 in Miami on "Energy—Its Impact on World Trade." The Jacksonville Area Chamber of Commerce will hold its annual World Trade dinner at Atlantic Beach, with the German Consul General in Atlanta, Roland Gottlieb, as main speaker. The Greater Tampa Area Chamber of Commerce is holding a two-day series of trade workshops.

South Carolina is conducting, at Charleston, the largest trade conference ever to be held in the state. Governor John C. West and Commerce Department's Deputy Under Secretary for Legislative Affairs, George J. Pantos, are among the speakers. Ten organizations are in the sponsoring group for the three-day event.

The Tenth Annual Wisconsin International Trade Conference at Milwaukee will have Arch N. Booth, executive vice president of the Chamber of Commerce of the United States, as featured speaker.

Minneapolis will again play host to the Upper Midwest World Trade Conference with Assistant Secretary of Commerce Jones as a major speaker.

At Des Moines, the Iowa Governor's Conference on Export Expansion will hear Commerce Department's Joel B. New.

The Ninth Annual Ohio Valley International Trade Conference, in Dayton, will have a list of speakers that includes Hugh M. Hyde, president, Johnston International Publications; Dr. William Voris, president of the American (formerly Thunderbird) Graduate School of International Management, and Orin E. Atkins, chairman, Ashland Oil Company.

In Cleveland the 29th Annual Cleveland World Trade Convention is the climax of northern Ohio's observance. It is sponsored by the Greater Cleveland Growth Association, Rotary Club, Cleveland-Cuyahoga Port Authority, and the U.S. Department of Commerce. "World Trade Opportunities in Crises" is the convention theme.

The Buffalo World Trade Association will host the 18th annual Tri-City World Trade Conference at the Treadway Inn in Niagara Falls. Gregory W. Mandeville of the Carborundum Co. is the featured speaker. Co-sponsors are the Rochester World Trade Council and the World Trade Club of Central New York, Syracuse.

Philadelphians will have an opportunity to attend an "Exporting to Brazil" seminar during World Trade Week, and to view displays at the Benjamin Franklin Hotel.

The Seventh New Jersey World Trade Conference at Clark, N.J., is co-sponsored by the New Jersey Bureau of International Operations and the New Jersey World Trade Committee. Gov. Brendan T. Byrne will open the conference, and George S. Schukin, who heads the Soviet Union's Kama River Purchasing Commission in New York, is the major speaker.

In New York, there will be special events at John F. Kennedy International Airport and the South Seaport's Pier 16, an air cargo tour and inspection at the former, and a Maritime Day program featuring the Kings Point U.S. Merchant Marine Academy at the latter.

The World Day luncheon sponsored by the Chamber of Commerce and Industry, the World Trade Club of New York and the Rotary Club will hear Donald M. Kendall, PepsiCo chairman who is active in U.S.-USSR trade developments. Peter F. Greene, editor of the Exporters' Encyclopedia, World Marketing Guide and other trade publications, will be given the annual "Man of the Year" award.

At Hempstead, N.Y., the Long Island Association of Commerce and Industry will sponsor the Second Long Island International Trade Exposition at the Holiday Inn. Featured speaker at a related World Trade Day program will be Deputy Under Secretary of Commerce George J. Pantos.

In Connecticut the District Export Council will sponsor a trade week dinner in Bridgeport, to be addressed by John B. Arnold, president of GTE International. The "Connecticut Business Journal" will publish a special trade week supplement.

In Boston, a Maritime Day luncheon will be addressed by International Longshoremen's Association president Thomas W. Gleason, and the major speaker at a "World Trade Day in New England" meeting sponsored by the International Center of New England will be Gov. Francis W. Sargent.

Wide-Ranging Report Sees Light At End Of U.S. Railways' Tunnel

Railroading is a troubled industry. Much of the rail system in the industrial Northeast is bankrupt, and even the "prosperous" southern and western roads are averaging only a 3.6 percent rate of return. While a recent surge has boosted railroad traffic to an all-time high, there has been no corresponding jump in profits. Meanwhile, the service offered has declined, manufacturers and other shippers say.

To seek some new answers, especially regarding the U.S. Government's role in reviving this vital segment of the national economy, the President's Council Of Economic Advisers, the Office of Science and Technology, and the National Commission on Productivity established a railroad task force. Their deliberations have produced a 328-page document outlining the problem, assessing its causes, and offering some novel and almost certainly controversial recommendations for its cure.

Portions of this report are summarized below, because of the importance of a viable rail system to American industry.

The problem

Until such time as innovation and reform stimulate the growth of rail traffic, the fortunes of the industry should ride on a fairly stable volume of traffic, the report states. If that is the case, then the key to higher wages, stable prices and increased profitability will be productivity—the efficiency with which labor and capital are employed to serve existing traffic.

Recent changes in the patterns of U.S. economic activity have been almost uniformly unfavorable to conventional rail service: the sluggish growth in consumption of bulk commodities, particularly those that typically move by rail; the trend toward more highly fabricated manufactures and toward freight of a higher value per unit weight; the trend toward product differentiation and competition among products on the basis of quality and service rather than price; and the urbanization of the population and growing self-sufficiency in the manufacturing capacity of metropolitan areas.

The segments of the freight market in which railroads hold a commanding economic advantage have diminished as the truck, the pipeline, the airplane have been developed to satisfy specialized transport needs. This reallocation of traffic on the basis of comparative advantage has caused the railroads to withdraw almost entirely from the passenger transport market, the small shipment market, and the local or shorthaul freight market.

Neither the railroad industry nor public policymakers can do much to slow the railroads' loss of traffic for which other modes possess a genuine comparative advantage. There are, however, indications that the railroads' loss of market share on this account may be coming to an end. The trucking industry has already diverted most of the high-value freight where the emphasis is on quality of service.

The traffic loss that should be of greatest concern to the railroad industry is the diversion of traffic for which the railroads actually still possess either a present or a latent comparative advantage. One of the most serious examples of the misallocation of traffic is large truckload shipments moving in excess of 200-250 miles, a distance beyond which railroads are generally conceded to have a comparative advantage. Roughly 57 percent of all common-carrier truck shipments exceeding ten tons move 300 miles or more. It is estimated that the revenues received by motor carriers and private trucking operations for the transport of truckload shipments exceeding 200-250 miles in length was nearly $5 billion in 1968, equal to 50 percent of that year's total railroad freight revenues.

Such misallocation of traffic raises the cost to society of freight transport by an estimated $1 billion a year. Among other things, it is estimated that trucks consume approximately four times as much fuel per net ton-mile as railroads.

One of the principal reasons for the loss of this long-haul traffic, is the unwillingness or inability of the railroads to improve and to differentiate the quality of rail service to the degree the market has demanded. The strategy of the railroads has been, in general, to pare costs and to compete against trucks with lower prices rather than to improve service or to offer a variety of service-price alternatives.

The answers: containers

A major commitment to containers and inter-modalism—using a combination of rail and truck to deliver a shipment—is a necessary first step toward solving the railroads' problems by stressing their strengths and discarding their weak points, according to the report.

While a practice of door-to-door deliveries over a dense rail network using general purpose freightcars probably made sense before the development of an extensive highway system and a strong trucking industry, the task force feels it is dramatically out of date today. The smaller size of the container is consistent with the fact that the fastest growing traffic is in light manufactures, shipments of which tend to be relatively small. The protection from pilferage and loss, and reduced packaging requirements which a sealed container affords are of particular value in shipping high-cost items, the task force says.

Speedier and more reliable service should result from having trucks pick up and deliver the containers, eliminating lengthy delays in terminal yards and switching yards. The volume of import and export traffic moved by rail might also increase, as containers are already widely used in ocean shipping.

Despite its comparatively rapid growth, containerized traffic still accounts for only about 5 percent of total railcar loadings, about 2 percent of freight tonnage, and and about 6 percent of freight revenues.

Regulatory restraints, wherein some railroads enjoy rather broad rights to operate their own trucking fleets while others are restricted in varying degrees, are another major obstacle to rapid containerization. This forced reliance on independent motor carriers to provide pickup and delivery service for containers discourages their use. Containers and inter-

modalism also can improve the speed and reliability of service along light-density branch lines, while at the same time lowering the costs to shippers. As long as the railroad is compelled to maintain train service over such lines, however, the incentive to introduce containers will be lacking.

The containerization issue presents still other challenges to the rail industry and its regulators. Relations between the rail industry and the trucking industry have historically been competitive. The realization of the inherent advantages of each mode, for which the containerization strategy calls, requires a new spirit of toleration if not cooperation between them.

To fully realize the potential of containerization, more concerted action within the rail industry is also required. The railroads have taken independent positions to some extent regarding how piggyback service should be priced and how aggressively it should be promoted. Railroads that expedite movement of all-container trains may see that effort wasted when containers must be interchanged with railroads that move those containers in regular train service.

BEST OF BOTH WORLDS—*Widespread use of containers would enable both the trucking industry and railroads to concentrate on the phases of a freight shipment which they do best, report finds. It could also improve railroads' share of foreign trade shipments.*

The answers: abandonment

Another nagging problem, and an immense drag on railroad productivity, is the question of what to do with the parts of the rail network which have become superfluous and economically burdensome.

Large amounts of rural track were built to serve thriving communities (or the expectation of such communities) which had no alternative means of cheap transport in the nineteenth and early twentieth centuries. Many of these communities have declined or have even disappeared, while at the same time the highway has come to better serve the transport needs of most rural communities.

A Penn Central study estimates that it loses about $20 million per year on operating 5,000 miles of branch lines, which make up roughly one-fourth of the road's total network. New track safety standards could add an estimated $16 million to the figure.

Most of these lines and terminals should be abandoned, the report states, but they have not been because manufacturers who use the lines can successfully protest that they are being deprived of a valuable service without any recompense.

A commitment to containers and intermodalism could allay these protests, allowing railroads to continue serving customers on lightly-used lines even as actual rail service on those lines was being phased out. In short, the railroads could be given permission to abandon rail operations along unprofitable lines without being allowed to abandon the traffic along those lines.

In addition to intermodalism, the study lists several other alternatives to outright abandonment of low-density lines, including smaller train crews, higher freight rates, operating subsidies to the railroads, scheduling abandonments well enough in advance so that all concerned parties could take appropriate measures to cushion the shock, and promoting alternate uses of such lines.

The answers: competition

It has been generally accepted by economists and historians that the large fixed costs involved in building and maintaining a railroad effectively prevented any real competitive operations. This argument, according to the report, gained such universal acceptance that every government thought it necessary to organize railways non-competitively, either through state monopolies or, as in the United States, through government-enforced cartels. The task force questions whether this assumption was ever valid to American railroads, and further states that any non-competitive features of today's railroads are simply a legacy of nearly a century of non-competitive organization.

The task force characterizes both trucking and railroading as industries operating at about 50 percent of capacity, due in large measure to ICC regulation, and estimates the added cost to the economy in idled resources and misallocated traffic at from $3.8 to $8.9 billion per year (best guess: $5.6 billion).

Regulatory modernization—including in particular greater latitude to adjust freight rates and freer entry into for-hire trucking —has been tried in Canada, Great Britain, and Australia. The relaxation of regulatory controls in these cases has not led to chaos as its opponents predicted, according to the report, but has tended to heighten competition, to improve transport service and to reduce costs by eliminating idleness and inefficiency in transport.

The answers: labor's role

Work rules, which are those elements of labor contracts that specify work assignments and the basis of pay, have protected railroad workers from involuntary and uncompensated displacement when innovations have been introduced, but have also proven a serious impediment to the effective deployment of railroad labor, in the task force's view. It says that no one benefits from the performance of work that serves no useful purpose or that can be performed more economically in another way. The work is demoralizing to those who do it, especially if it subjects them to scorn or ridicule such as the term "feather-bedding" connotes. But the worst feature of some restrictive rules, in the task force's view, is their tendency to perpetuate jobs after the persons they are originally intended to protect have retired or moved on to another job. There is simply no defense from society's point of view for allowing new workers to be drawn into obsolete occupations, states the report.

In general, the inflation of labor costs caused by work rules encourages management to substitute capital and purchased services for labor wherever possible, so that the end result may even be to depress rather than sustain employment—ironically, the opposite of what the unions have normally intended.

The need to restructure the Railroad

Retirement System within the next few years may provide a timely opportunity to solve the work-rule problem. A federally-administered special benefit program for retired and disabled railroad workers created by the Railroad Retirement Act of 1935, the Railroad Retirement System faces a financial crisis.

If federal monies are channeled into "a rescue of the railroads," it might be done in a way that aids labor as well as capital. Furthermore, if the Federal Government can induce work-rule reforms in return for financial assistance to the Railroad Retirement System, this could save taxpayers money in the long run. Restrictive work rules have contributed to the bankruptcy of six Class I railroads in the Northeast and to the marginal financial condition of other roads. If the Federal Government assists these roads, either through direct takeover or operating subsidies, the taxpayer will directly bear the cost of continuing the restrictive work rules. Conversely, if work rules can be reformed now, the ability of the railroad industry to contribute to the refinancing of the Railroad Retirement System should be greatly enhanced.

The answers: mergers

Because of the large proportion of shipments that move over two or more railroads, the railroads must operate as an interconnected and integrated system to operate efficiently. As a result, individual railroads are highly interdependent—large roads depend on small roads, progressive roads depend on traditionally-operated roads, and strong roads depend on weak roads in moving the nation's freight.

A merger movement has swept the industry during the past 15 years. Approximately forty mergers, acquisitions, and lease agreements have reduced the number of major independent railroads from 110 in 1957 to 68 at present. If there is a pattern to the larger mergers, it is a tendency toward parallel mergers of railroads serving primarily the same region, as opposed to end-to-end mergers of carriers serving essentially different, usually contiguous, regional markets.

The comparative advantage of the railroads and their greatest traffic potential lies in long-haul bulk traffic, says the report, and the railroad industry should be organized and structured to serve this market. Such long hauls, however, typically require the movement of the traffic over two or more railroads.

To serve this traffic the railroads must cooperate with one another, coordinate their operations, and, in general, perform as a system. At the same time, because the other railroads with which a particular road may interchange traffic will typically serve some of the same markets as that particular road, the railroads find themselves competing with the very carriers upon whom they depend and with whom they are obliged to cooperate.

End-to-end consolidation should help greatly, claims the task force, calling for restructuring the industry into a limited number of continental railway systems reaching into every area of the country. Railroads then would not have to rely on other railroads in developing the long-haul markets which offer the greatest potential for the rail industry.

The restructuring of the rail industry into four to seven larger systems should also encourage more energetic, resourceful, and self-reliant management of rail operations. Enjoying and suffering the consequences of its own actions, each rail system should move toward operating and investment practices that employ freight cars and track capacity effectively. Costly and time-consuming traffic interchange of both cars and related information would be substantially reduced. Initiatives in marketing, pricing, and technological innovation would be stimulated since the rewards will be more fully realized by the line taking the initiative. The quality of service would be more consistently under the control of a single carrier, and subject to improvement at the carrier's initiative.

A system of continental carriers should also enhance competition in the industry, in the task force's view. The present-day inter-dependence among railroads hampers competition and restricts rivalries. Rather than suppressing competition, the creation of several healthy railroad giants through end-to-end consolidations could actually inject a strong dose of competition into the industry. The resulting systems should tend to be of roughly equivalent strength and enjoy approximately equal market opportunities.

The restructuring of the rail industry into competitive, continental systems poses no insuperable difficulties. Basically, only a series of consolidations is required. If the proper incentives can be provided, these mergers should follow at their own initiative.

The unification of all railroads under common ownership and management has been proposed as an alternative method of revitalizing the railroad industry. Unification might occur under private or public ownership. The task force found evidence indicating that medium-sized railroads realize most or all of the economies of traffic density attributed to larger lines, and that larger railroads may actually suffer losses due to their size. The report also opposes complete unification because it obviously would stifle any of the gains to be made from increased competition among lines.

If the drive for unification persists, the report finds good reason for proceeding in that direction through the formation of the four to seven larger continental systems mentioned earlier. This more gradual, step-by-step approach to unification would test whether the expected economies of scale actually do exist. Also, the experience with railroad nationalization during the First World War and the more recent Penn-Central merger teach that large scale unifications should not be executed abruptly.

The failure of such a unified system to operate profitably as a private enterprise would almost certainly lead to its nationalization. In every nation having such a system, it operates at a substantial deficit each year. Thus, it appears that nationalization should be held in reserve and employed only after all other means of running the railroads profitably have been tried and failed, in the task force view.

The answers: innovation

There have been a number of notable technical innovations by the railroads during the postwar period, including dieselization, giant and specialized freight cars, automatic classification yards, centralized traffic control, mechanized maintenance, and automation of clerical functions.

As rapid as technological progress may have been in railroading, it has also been uneven. Gaps or lapses in railroad technology are a primary explanation of why total productivity in the rail industry has grown at a rate averaging only 1 to 2% per year. The correction of these lapses can conceivably enable the rail industry to achieve significant productivity improvements which, of course, would benefit its customers as well.

The task force singles out five areas of innovation, some of which hold special promise for federal research assistance: development of a containerization strategy; a freight car management system; revised train scheduling; cost, price and profit analysis; and improved management planning.

For example, there is almost certainly an opportunity for improving car utilization significantly. The national freight-car fleet consists of about 1.8 million cars that handle about 25 million carloadings per year. Thus the average car handles only 14 revenue loads per year or one load every 26 days. Overall, the Federal Railroad Administration estimates that a car-management system should increase car utilization by at least 10 percent. This would have the effect of adding 170,000 new cars to the fleet. At a price of $15,000 per car, a 10 percent improvement in utilization would substitute for an investment of about $2.5 billion in new capacity.

The summary

To date, the rail crisis has been most acute in the Northeast, where the Penn Central and five other Class I railroads are in bankruptcy and loss of rail service in

some areas of the region is threatened. The problems of the railroad industry, however, are by no means confined to the Northeast, according to the productivity task force. Indeed, the Penn Central is in some ways only a more extreme manifestation of trends present throughout much of the industry.

Not only are there a multitude of causes for the railroads' troubles, but the causes tend to be interconnected. Regulatory pratices, management and labor practices, railroad technology, are to a large extent an accommodation to one another.

Reform must be pursued on many fronts.

The present fractured corporate structure of the rail industry severely handicaps railways in developing rail traffic and in handling shipments efficiently, the report says. Because the railroads must perform as an integrated system, strong and progressive railroads are dependent on weak and less responsive roads. Interrailroad differences and rivalries hinder the joint actions and joint decisions that are essential to the railways' performance as an integrated system. At the same time, competition among railroads is less effective because of the mutual interdependence of the competitors.

The formation of four to seven independent continental systems (north to south as well as east to west) through predominantly end-to-end mergers should help considerably in solving the industry's problems, the task force says. Freed of their previous level of dependence on the cooperation of other railroads, the executives of individual railroads would have the ability and incentive to manage effectively and to take promising initiatives in service, pricing, marketing, and technological innovation. Competition among these continental systems, in addition to intermodal competition, will further stimulate managements to be responsive to shippers' needs.

Management and labor unions, not unsurprisingly in a declining industry, have had difficulties in agreeing on an appropriate sharing of the labor productivity gains that have resulted from technological innovation, merger, route abandonments, and reorganization of work. In general, labor unions have been put in the position of standing on job definitions known as work rules to protect workers from uncompensated job loss.

By inflating the cost of labor, these work rules have induced management to minimize the use of labor whenever possible, and by reducing train frequency to such a point that much competitive, long-haul traffic is needlessly lost to trucks. The interests of both labor and management would be better served by other ways of sharing productivity gains.

A number of innovations will permit the railroads actually to provide the higher standards of freight service that shippers

MORE EFFICIENT USAGE—*Task force study concluded that a freight-car management system would increase car utilization by ten percent, adding the equivalent of 170,000 new cars, or an investment of $2.5 billion, to the nation's rail systems.*

of transport-competitive traffic demand. The most important is containerization of shipments, which promises to streamline railroad operations to the benefit of the railroads and shippers alike. While piggyback traffic is growing year by year, the full potential of containerization is far from being reached. Revision of train schedules and operations and the implementation of a freight-car management system promise to improve the speed and dependability of delivery while improving freight-car utilization.

One of the more striking conclusions of the task force report is that the railroad problem is more a problem of productivity and of adaptation to ever-changing markets than it is a purely financial problem. The railroad industry as a whole has had fairly good access to private capital, at least for rolling stock. The problem has not been lack of capital so much as an inability to employ new funds profitably under present institutional constraints and with existing technology.

The federal role

There have been frequent suggestions that federal subsidies or federally-guaranteed loans are vital to the survival or recovery of the industry. The report lists several reservations about such a policy: First, money alone does not always cure productivity and marketing problems. Second, the government should be cautious about investing in what may be obsolete technologies and could thereby aggravate the industry's problems.

The Federal Government also might improve the financial health of the industry, facilitate containerization and the streamlining of rail service, by purchasing railroad rights-of-way whose light traffic density justifies abandonment and whose value in other uses, public and private, often might be greater. The government can also stimulate innovations, particularly those of a "public good" or highly general character, by sponsoring appropriate research.

The reward

The recommendations of this report cover complex and controversial subjects. They strike at the heart of labor-management bargaining, intra- and inter-industry competition, and use of scarce private and public investment funds. "The recommendations call for profound changes in the way corporate officials, labor union leaders, and government policy-makers think about railroading and how they conduct their affairs.

"This mixture of complexity and controversy means that implementing the recommendations will not be easy. No one should expect that. The reward, however, can be an industry that is modern, competitive, lean and specialized compared to the railroads of today. This revitalized railroad industry would differ not in physical appearance alone, but in the satisfaction it brings to employees, investors, shippers, and the public," the report concludes.

Coming Information Systems Seen To Cut Costs, Expand Productivity

In the wings of the nation's technology, unperfected as yet, is a whole new world of change and development that could greatly expand industrial productivity, introduce cost-cutting speedups in business operations, enhance America's competitive position in world markets, raise its gross national product, and revolutionize lifestyles throughout society.

This is the potential of the possibilities involved in the development of the information services made possible by linking the great knowledge reservoirs of the computer with the ability of broadband communication channels to bring information that the user wants into the office or home.

An example of these possibilities is a front page from a Japanese newspaper presented last July by John K. Tabor, Under Secretary of Commerce, before the Foreign Operations and Government Information Subcommittee of the House Committee on Government Operations.

The masthead of this front page read "The Toshiba News," and just underneath were these words: "Telenewspaper Age Dawns—Tobisha Home Facsimile Unit Promises New Era of Instant Communication—Can be Mass-Produced for every Home." This clearly-printed page was produced by a unit on display at a professional engineers' meeting in 1971.

The unit that produced this page contained five selector buttons. The buttons enabled the user to choose the following categories of news: general, political, social, foreign, and sports. All the user had to do was to set the unit at night, go to sleep, and wake up to find a newspaper with his own selection of news waiting for him at breakfast. Such a newspaper, if it should become a commercial possibility, would be something new in journalism, a custom-made newspaper, tailored to the desires of the reader.

News served in such a manner admittedly could not achieve the efficiency of the metropolitan daily, written, edited, and assembled to meet the demands of a wide readership. But the custom-made newspaper is regarded as one of the possibilities of a new information industry based on a combination of computer and communications technologies. Such an industry, according to some estimates, could reach a $20 billion annual revenue level by 1990.

The type of unit capable of producing the custom-made newspaper could do a vast range of other things for the businessman or the home owner, depending on what it was made to do. It would be both a receiver of information, either in printed or video form, and a sender of requests for information.

Telecommunications experts explain that the new information system would be a great boon to the businessman because it would do many things for him. Among other things, it would:

Enable him to get accurate and more comprehensive information faster, thus helping with decision-making; curtail time-consuming and costly paper work, including paper work required by government, a major assist especially to the small businessman; prevent wasteful delays and speedup business operations; reduce the interval between the time an order is written and the shipment is on the way to the buyer; facilitate research programs; conserve energy; and generally increase efficiency and cut costs.

Greater productivity

All of these aids would result in greater productivity, an improved competitive position, and an expanded gross national product.

In his testimony before the Senate subcommittee, Tabor explained that the United States was the world leader in computer and communications technologies. But he pointed out that positive action on the part of the U.S. is required to maintain the lead in the development and marketing of information technology.

The Japanese have been working on an information technology program for several years, and are now said to be going forward with specific projects.

Two pilot projects are being developed by the Japanese, according to information received from them. One is planned for the Higashi Ikomia area of Japan. The second project, which is being carried out in the Tama area, is separately funded, and is under control of a different division of the parent organization for both projects, the Video Information System Development Division. Both projects are advanced and sophisticated, and both would provide two-way services.

The Higashi Ikomia project is backed by six Japanese computer manufacturers, an electronics manufacturer, two software manufacturers, and a model town developer for the Higashi Ikomia area. The group that will build the system is a non-profit organization. The venture has the backing of the Japanese Government, banks, various institutes and electronic and cable firms.

Robert Powell, Chief of the Telecommunications Analysis Division, and Dr. Robert Powers, Special Assistant for Urban Telecommunications of Commerce's Office of Telecommunications, explain that in terms of governmental demonstration, the Japanese are doing more with their technology than is being done in the U.S. with ours.

They feel that the Japanese could gain the lead in the international market for information technology equipment, which would include such things as terminals, cameras, computers, cables, amplifiers, and software.

"The country that has such a system first," Powell comments, "could have a great advantage in international markets."

Is the technology available in the U.S. to begin establishment of such a system now? Powell and Powers say the answer to this is "yes" and "no." They add that there is enough available equipment to demonstrate the new services, but that a great deal of engineering, product development, and systems design remain to be done before practical, inexpensive, and consumer-accepted services are available.

One need, they explain, is standardization of both the equipment to be used and the software, the codes and the language to be employed in the transmission of information. This is essential, they observe, so that a TV signal generated in one place will be receivable in another. Compatible receiver units will be necessary, they point out. The absence of voluntarily accepted standards could encourage proliferation of incompatible systems.

An acknowledged major problem in the new information system would be the protection of individuals and information

TELECOMMUNICATIONS ANALYZER — *Students at three North Carolina universities are using a centrally-located computer linked to each school by telephone circuits to analyze huge quantities of scientific and mathematical data for classroom projects. Information in such fields as economics, engineering, psychology and physics is transmitted to the Triangle Universities Computation Center shown here at Duke University. The day is coming when telecommunications applications will be commonplace in business.*

against fraud and invasion of privacy. The same problem, it is pointed out, exists now in a large measure, and in a greatly expanded information system it would be present to the extent that it presented opportunities for abuse. However, Powell suggests that with a well-developed information system there might be a better chance of dealing with abuse than exists now.

At present, the Federal Government is actively promoting the development of an extensively expanded information system. This is the purpose of an agreement between Dr. Betsy Ancker-Johnson, Assistant Secretary of Commerce for Science and Technology, and Michael H. Moskow, Assistant Secretary for Policy Development and Research of the Department of Housing and Urban Development, who are seeking by next year to put together a laboratory model of the type of hardware to place in a center which would be a focal point for information and information services in a community.

Contact is being maintained with manufacturers who are developing various forms of receiver units. In addition, engineers and analysts in Commerce's Office of Telecommunications are working with counterparts in the Federal Energy Office on a remote work center project where individuals could perform their daily jobs near their homes.

The new information system, it is pointed out, would make it possible for many workers to carry out many of their duties in local work centers near their homes or even in their homes. One significant advantage would be a reduction in fuel consumption and air pollution resulting from savings in gasoline necessary to transport workers downtown.

The link between the computer center, where information would be stored, and the office or home receiver, where it would be delivered, offers an almost limitless range of benefits, extending from improving law enforcement to providing a person with answers to questions which he might otherwise have to spend days or weeks to run down.

The Department of Health, Education, and Welfare has awarded a number of contracts to investigate the advantages of using two-way communications to improve and expand health care services, and in some cases grants have been made to develop such services.

The Department expects to develop in the next few weeks a program for future action in this field. The work thus far indicates the tremendous possibilities that two-way communication may hold for better care and treatment of patients, and for improved health care generally on a greatly expanded scale.

A variety of demonstration projects combining television systems with computers for improved services to the home are either in progress or planned.

A report prepared for the Department of Commerce by Paul Baran, Institute for the Future, Menlo Park, California, lists 30 categories of services for which customers would be willing to pay about $20 per month.

Examples of these services follow:

► Cashless and Checkless Society Transactions: This service would include systems and procedures to eliminate the need for physical transfer of cash or paper checks in financial transactions. Purchases could be charged to a person's credit card or his bank account. Assurance could be made that the purchasers's bank account was not overdrawn by the purchase, or that his credit card had not been recorded as lost or stolen. To buy tickets to a concert, all the buyer would have to do would be to indicate the tickets that he wanted, and they could be paid for and the tickets printed out on his receiving unit. This has been done in demonstration form.

► Educational Services: This would include computer-aided instruction, a computer tutor, a correspondence school system, and adult evening courses.

► Business Conducted from the Home: Five services are included in this category, embracing person-to-person paid work at home; secretarial assistance, allowing one to dictate a letter over a remote telephone to a recorder after which the letter would be transcribed by a remotely situated secretary; access to company files; computer-assisted meetings; and banking services.

► General Access Information: This would include nine services: a custom-made newspaper, fares and ticket reservations, daily calendar and reminder about appointments; an electronic general newspaper; legal information; weather information; bus, train, and air scheduling; library access; and an index of all services provided by the home receiver.

In addition, there would be various forms of aids in shopping, selection of entertainment and restaurants, and person-to-person communications.

Powell and Powers explain that the receiver that provided printed material, or the video receiver, could be relatively inexpensive, perhaps within the price range of the present television set, depending on demand and numbers produced.

Energy Management Digest

GOVERNMENT ENERGY RESEARCH...A 286-page analysis by Frost & Sullivan, Inc., market research analysts, details the $10 billion Federal Government funding that will go into critical areas in which energy research and development will be concentrated through fiscal 1979. The areas are conservation of energy and energy resources, production of oil and natural gas, production of nuclear energy, and use of other energy resources.

IMPROVING TRAFFIC FLOW...The Department of Transportation has devised a number of plans to improve traffic flow for mass transit vehicles, thus saving gasoline and energy. In many areas lanes counter to the peak traffic flow often can be reserved for buses, DOT reports. This approach offers a low capital cost improvement to the efficiency of existing freeways and the possible elimination or deferment of the need to expand existing freeways.

ENERGY CHECKLIST NUMBERS 120...The Raytheon Co. has an energy management program at each of its 48 U.S. plants and laboratories. Average fuel reductions of 30 percent and electrical reductions of 15 percent have been experienced. Included in the Raytheon plan is a checklist covering 120 energy saving measures. The checklist is completed and returned to the company-wide monitor.

ENERGY-EFFICIENT TECHNOLOGY...Allied Chemical Corp., awarded a SavEnergy citation by the Commerce Department earlier this month, has put two new energy-efficient industrial processes into operation. A new method of charging coal into a coke oven uses less coal to produce the same effect, and a procedure to recover sulfur by-products from stack gas is a more efficient means of producing sulfur. Both processes are helping Allied Chemical toward its goal of saving 10 percent in fuel consumption. It operates 150 plants.

J.P. STEVENS & CO...The textile manufacturer with 80 plants effected an energy savings in the last quarter of 1973 of approximately 13 percent in energy expended per pound of raw material entered into processes. One energy reduction project at Stevens resulted in saving 1,000,000 gallons of hot water per day by recycling the hot water into processes.

ENERGY-WISE BUYING PRACTICES..."Buy durable products," advises Dr. John H. Gibbons, director of the Federal Energy Office's energy conservation unit. "Less durable products require earlier replacement, and putting more products on the market uses more energy. The dollar cost of your investment also increases when averaged over a period of time."

GUIDE TO CONSERVATION...A guide to energy conservation that spells out how to save funds and fuels has been published by Honeywell's commercial division. "The Crunch," a 20-page illustrated handbook, is crammed with tested ideas on how to save on heating, cooling, lighting, ventilating. It tells how to schedule power loads and how to shed them to avoid high electrical demand charges. It spells out how to cut energy costs with a centralized control in large buildings, time-shared building automation in medium sized buildings.

TIPS FOR ENERGY-SAVERS...Check tire pressures regularly, the Federal Energy Office recommends. "Underinflated tires increase gas consumption. Also, use radial tires, and purchase new cars on the basis of lowest total owning cost--including the purchase and estimated fuel cost."

ENERGY-CONSCIOUS DESIGNING...The National Bureau of Standards has prepared a document entitled "Design and Evaluation Criteria for Energy Conservation in New Buildings" for the National Conference of States on Building Codes and Standards. This document is intended to serve as a basis for a national standard developed through the voluntary consensus process.

Farm Prosperity Paced Strong Personal Income Rise In '73; North Dakota Was Top Gainer

Thanks to a bountiful increase in farm income, the Rocky Mountain and Plains regions led the nation in gains in total personal income between 1972 and 1973. The total personal income rise in each of these regions was 13.2 percent, but North Dakota topped all the states with an income jump of nearly 30 percent.

This information is included in a report prepared by Commerce's Bureau of Economic Analysis, an agency of the Social and Economic Statistics Administration, and is being published in detail in the April issue of the *Survey of Current Business*.

Besides the big increase in North Dakota, the report shows the following percentage gains in personal income in the other eight leading states: South Dakota, 17.2; Idaho, 16.5; Kansas, 14.6; Minnesota, 14.5; Colorado, 14.1; Iowa, 14.1; Nevada, 13.9; and Wyoming, 13.7.

The Bureau explained that income gains in the leading states mainly reflected changes in production and prices rather than in labor inputs. In the Plains, the agency said, the advance was due entirely to an increase of more than 50 percent in farm income. In North Dakota, South Dakota, Idaho, Kansas, Minnesota and Iowa farm income rose 40 percent or more.

Service industries up

In addition, large gains in nearly all service-related industries occurred in Colorado, Nevada, and Wyoming, and in the latter two states manufacturing and mining payrolls were up sharply.

Personal income increases in the leading states compared with a national gain of 10.3 percent. Twenty-two states and the District of Columbia fell below the national average. However, gains were registered everywhere. Percentage increases at the bottom of the list were: Massachusetts, 8.4; District of Columbia, 7.7; New York, 7.4; West Virginia, 7.3; and Rhode Island, 7.2.

Payrolls in the construction industry and in most service-related industries, the Bureau said, were weak in these areas. In addition, pronounced weakness in federal payrolls was shown in Rhode Island and Massachusetts, where military bases were reduced or closed, and in mining payrolls in West Virginia, since coal production was little changed from 1972 to 1973.

Topped price rises

The increases in personal income are presented in current dollars rather than in dollars adjusted for price rises. However, the Bureau explained that the personal income gain all regions and states and the District of Columbia exceeded the 5¼ percent national increase in consumer prices by at least two percentage points.

Under the measurement standard employed by the Bureau, personal income consists of private and government wage and salary payments in cash and kind, other labor income, farm and nonfarm proprietors' income, interest, net rents, dividends, and transfer payments, less personal contributions for social insurance. Personal income is measured before the deduction of personal income or other personal taxes.

Per capita figures similar

The states which showed big increases in farm income also were at the top of the list in per capita income gains between 1972 and 1973. Per capita income is personal income divided by the total population.

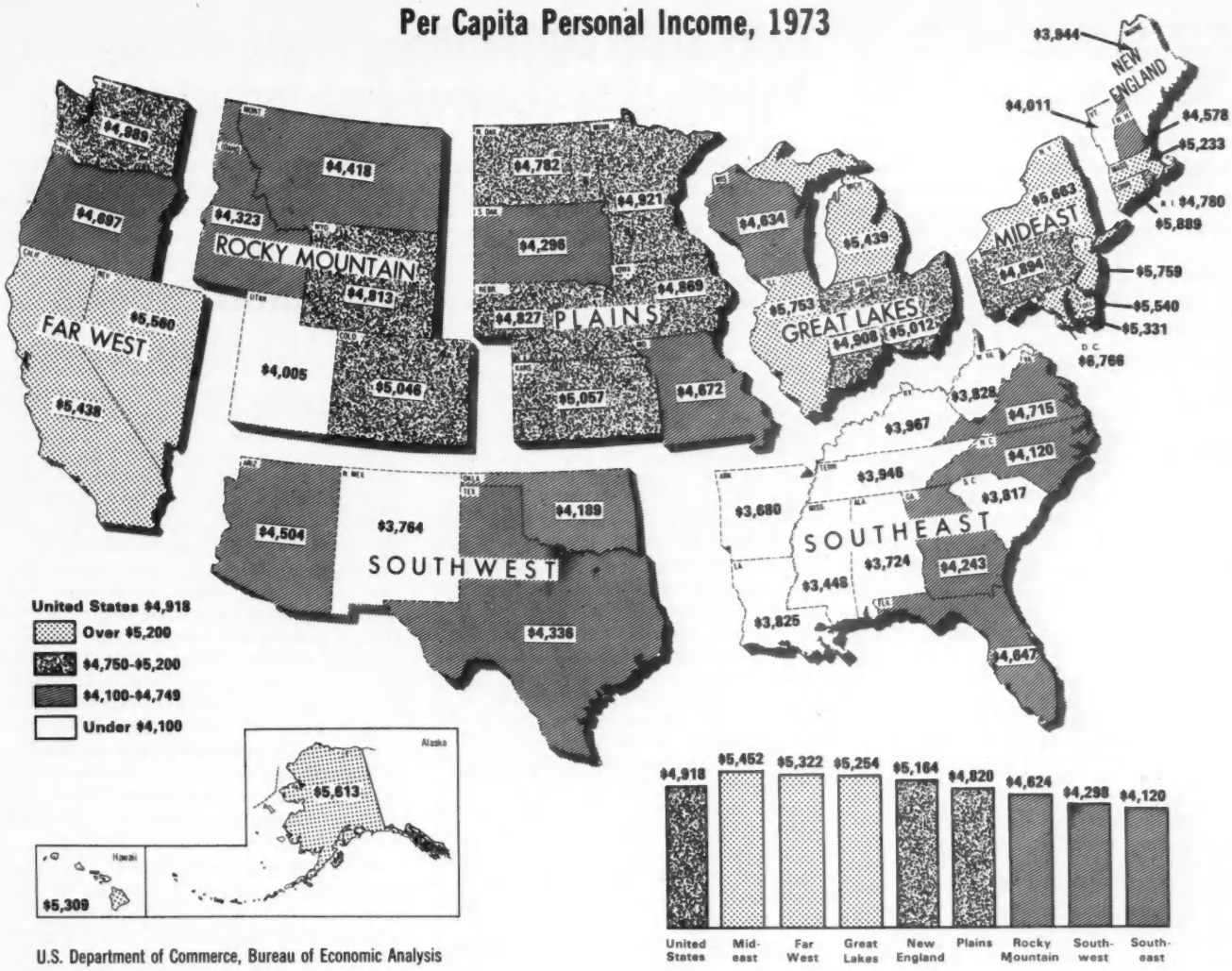
The largest percentage gains in per capita income were as follows: North Dakota, 27.9; South Dakota, 16.1; Minnesota, 14.5; Idaho, 14.4; Kansas, 13.5; Iowa, 13.2; Indiana, 12.4; Illinois, 11.9; and Washington, 11.6.

The national per capita income increase was 9.5 percent. Thirty states and the District of Columbia dropped below the national average gain. Here again, the per capita income increase was universal. Percentage increases at the bottom of the list

Percent Change In U.S. Personal Income, 1972-73

UNITED STATES	10.3
North Dakota	29.6
South Dakota	17.2
Idaho	16.5
Kansas	14.6
Minnesota	14.5
Colorado	14.1
Iowa	14.1
Nevada	13.9
Wyoming	13.7
Indiana	12.9
Arkansas	12.6
Florida	12.3
South Carolina	12.3
Nebraska	12.1
Arizona	11.8
Illinois	11.8
Oregon	11.7
Oklahoma	11.6
Kentucky	11.4
Washington	11.1
Michigan	11.0
Alaska	10.9
Montana	10.8
Mississippi	10.8
Virginia	10.8
New Hampshire	10.7
Utah	10.4
Connecticut	10.3
Georgia	10.1
Wisconsin	10.1
Texas	10.0
Tennessee	10.0
Ohio	10.0
New Jersey	10.0
Alabama	9.8
California	9.7
New Mexico	9.7
North Carolina	9.7
Maryland	9.6
Pennsylvania	9.4
Vermont	9.3
Hawaii	9.2
Louisiana	9.2
Maine	9.1
Missouri	8.9
Delaware	8.9
Massachusetts	8.4
District of Columbia	7.7
New York	7.4
West Virginia	7.3
Rhode Island	7.2

Per Capita Personal Income, 1973



U.S. Department of Commerce, Bureau of Economic Analysis

were: Delaware, 6.8; Rhode Island, 6.6; West Virginia, 6.5; Florida, 6.1; Arizona, 5.7; New Mexico, 5.6; and Hawaii, 5.5.

The Bureau explained that in all states and the District of Columbia, per capita income rose more than national consumer prices. It added, however, that in three states—Arizona, New Mexico, and Hawaii—the gain was half a percentage point or less above the rise in prices.

Highest gain least

Some of the areas with low increases in personal income, both on a total and per capita basis, were among the highest in actual per capita income. Generally, the states with high per capita income were concentrated in the Northeast and Far West.

The District of Columbia led all areas in per capita income with $6,766. States leading in per capita income were: Connecticut, $5,889; New Jersey, $5,759; Illinois, $5,753; New York, $5,663; Alaska, $5,613; Nevada, $5,560; Delaware, $5,540; Michigan, $5,439; and California, $5,438.

Air Conditioner Labels Will Show Energy Efficiency

The first step has been taken in a broad voluntary program of energy conservation for home appliances. The initial action was the recent announcement by Secretary of Commerce Frederick B. Dent of the final specification for labeling room air conditioners to show their energy efficiency.

The energy labels for the air conditioners will make use of a concept known as Energy Efficiency Ratio (EER). This is a number obtained by taking the air conditioner's cooling capacity (rated in BTU's per hour) and dividing it by the electricity demand (expressed in watts).

Under this system, the higher the EER number on the tag the more efficient will be the air conditioner.

The specification will take effect immediately upon its publication in the Federal Register, rather than the usual 30 days after publication of such notices. This is because of the urgency of the energy problem and the fact that the selling season for the air conditioners is at hand.

"An additional 30-day delay," Secretary Dent said, "could seriously impair the ability of those manufacturers desiring to voluntarily participate in the program to label their units for the forthcoming season.

Easing energy demands

"We hope to see these labels appearing on room air conditioners in appliance showrooms this spring. The labels will not only enable consumers to purchase units that will reduce the cost of their utility bills but will also provide them with the most efficient types of air conditioners for easing energy demands while meeting their needs."

Explaining that the EER number will be prominently displayed on the label, Dent said: "The label will also show the range of energy efficiency ratios for all room air conditioners of similar size. Thus the con-

sumer will be able to know whether a particular unit has a high or low Energy Efficiency Ratio."

Dent said the specification "could become part of the mandatory efficiency labeling program that President Nixon has asked the Congress to enact."

The legislation would require that all major appliances and automobiles produced or imported into the U.S. should be labeled clearly to indicate their energy use and efficiency.

The next group of appliances, consisting of refrigerators, refrigerator-freezers, are scheduled to be labeled late this year, Dent said. They will be followed by water heaters, clothes dryers, clothes washers, dishwashers, ranges and ovens.

Manufacturers participate in the program on a voluntary basis. Dent thanked the manufacturers of room air conditioners and the Association of Home Appliance Manufacturers for cooperating in the program. He also expressed confidence that the nation's appliance retailers will cooperate by attaching labels supplied by manufacturers to air conditioners already on the showroom floor but manufactured prior to the start of the program.

The air conditioner specification was developed by Commerce's National Bureau of Standards in consultation with the Council on Environmental Quality and the Environmental Protection Agency.

Seattle Meeting To Discuss Rules For Mammals Netted By Commercial Fishermen

A public hearing on proposed regulations affecting the incidental taking of marine mammals during commercial fishing operations is scheduled for May 15 in Seattle.

The hearing is being held in compliance with the Marine Mammal Protection Act of 1972. Among other considerations, the regulations are designed to reduce porpoise mortalities in the yellowfin tuna fishery.

The Marine Mammal Protection Act, in effect, provides that the commercial fishing industry is allowed to take marine mammals incidental to fishing operations until Oct. 20 of this year, without permits. After that date permits, to be issued by the Secretary of Commerce, must be obtained to take any marine mammal incidental to commercial fishing operations.

Individuals and organizations may express their views or opinions by appearing at the hearing in Seattle. Written comments or inquiries concerning the hearing should be sent to either the Director, National Marine Fisheries Service, NOAA, Washington, D.C. 20235, or to the Regional Director, National Marine Fisheries Service, NOAA, Lake Union Building, 1700 Westlake Ave., North, Seattle, Washington 98109. The hearing will begin at 9:30 a.m. in the Lopez Room of the Seattle Center.

Pact Seen Expanding Minority Firms' Role In U.S. Shipbuilding Industry

Minority firms stand to supply goods and services to the U.S. shipbuilding industry through a recent agreement between the U.S. Maritime Administration and the Office of Minority Business Enterprise. Under the agreement between the two Commerce agencies, Maritime will ensure that minority firms are given full consideration as suppliers of marine-related equipment and services to Maritime Administration contractors.

Under Secretary of Commerce John K. Tabor, who presided at the New Orleans signing, noted that several thousand subcontractors furnish the goods and services that go into constructing U.S. merchant ships.

"Currently, merchant ship construction contracts valued at $3.6 billion are in force in American yards, and since nearly half of the contract price is represented by subcontracted materials and components, it is essential that minority firms have an opportunity to compete for a share of this business." Tabor went on to say that "although minorities now constitute upwards of 28 percent of the shipbuilding industry's workforce, only .04 percent of the value of current industry subcontracts is going to minority business firms."

The Under Secretary added that the MARAD/OMBE agreement offered a practical method for increasing minority involvement by matching minority business firms with subcontract opportunities is a major industry.

OMBE Deputy Director Samuel Cornelius, described the arrangement as one which calls for MARAD to acquaint his agency with Maritime contracting opportunities and procedures and to assist shipbuilding firms in developing and monitoring minority business programs.

OMBE will provide management and technical assistance for minority firms interested in becoming maritime subcontractors and to those firms which win contracts.

Help with financing

It will also seek to locate capable minority firms and assist in obtaining financing from private sources for firms that need it, according to Cornelius.

Deputy Assistant Secretary of Commerce for Maritime Affairs Howard Casey stated "that the program to expand the use of minority subcontractors is being launched at a time when the domestic shipbuilding industry has the largest peacetime backlog of commercial orders in its history."

According to Casey, only 30 minority companies had active subcontracts with U.S. shipyards during the first quarter of this year.

The estimated total value of these contract awards was put at $800,000. Some two-thirds of this amount represented subcontracts awarded by one yard, Avondale Shipyards of Louisiana.

Pollution Experts Set Up Monitoring System For Oceans

Experts representing more than 75 nations are developing oil pollution measurement guidelines at an international conference being held at Commerce's National Bureau of Standards in Gaithersburg, Md.

Countries with direct participation in the May 13-17 event, which could have far-reaching effects on commercial shipping, include the United States, USSR, Canada, Belgium, France, Sweden, United Kingdom, Republic of Korea, West Germany, India and Japan. More are expected to become involved in the next few years.

Guidelines developed in the conference workshops will be followed during a two-year international pilot project on marine pollution monitoring through the Integrated Global Ocean Station System program.

Scheduled to begin this summer, the pilot project will coordinate surveys on the degree of oil pollution in designated areas and develop monitoring capabilities to the point where worldwide data on petroleum pollution can be obtained. The project is seen as a major step in evolving a comprehensive international marine environmental monitoring, assessment and prediction program of services to various categories of ocean users.

A growing problem

Since 1967, when the first major oil tanker accident occurred as 100,000 tons of crude oil were lost from the tanker Torrey Canyon off the southwest coast of England, oil discharges from ocean transports have represented an increasingly serious threat to the world's oceans. Some experts estimate that nearly a million tons of oil end up in the marine environment each year from tankers due to operational and accidental discharges.

The Marine Pollution (Petroleum) Monitoring Symposium and Workshop, is cosponsored by NBS and two other Commerce agencies, the National Oceanic and Atmospheric Administration and the Maritime Administration. Other sponsors are the Intergovernmental Oceanographic Commission, an affiliate of the United Nations Educational, Scientific and Cultural Organization, and the World Meteorological Organization.

New Technique Aids Precise Measurement Of U.S., Also Helps To Place Offshore Rigs

A surveying system that offers major advantages in accuracy has recently been employed to determine the location of offshore oil platforms and now is being used to remeasure the United States.

Under the system, known as doppler geodesy, radio signals from satellites orbiting the earth are correlated with signals generated by a geodetic receiver, an instrument weighing less than 100 pounds. The system is accurate primarily over long distances. It is said to permit the location of an oil platform to be determined within an accuracy range of plus or minus six feet, and surveys to be accomplished with an accuracy of approximately one meter (3.28 feet) in a million square miles.

Tests on the location of offshore oil platforms, using the doppler geodesy system, recently were completed by Commerce's National Oceanic and Atmospheric Administration to demonstrate the feasibility of accurately determining the location of oil platforms at considerable distances from shore. Accurate determination of the location of the platforms will enable the oil industry to develop its offshore holdings more fully.

Remeasurement of the United States is being done by two field teams of the National Geodetic Survey, a NOAA agency.

Each team is equipped with a hand portable geodetic receiver and a few accessories. The receiver receives electronic signals from a Navy satellite and measures the doppler shift and the precise time of the satellite signals with the signals generated by the receiver. The data are recorded on tape. With this information and precise orbital data supplied by the Navy Weapons Laboratory at Dahlgren, Virginia, the Geodetic Survey is able to determine the geographic location (latitude and longitude) of each point.

In all 50 states

Measurements are being made at about 130 points in the 50 states, at distances approximately 150 miles apart. The measurements for each point will be used to improve the positions of the 150,000 survey markers which make up the National Horizontal Survey Control Network, maintained by the Geodetic Survey.

The horizontal network, along with a similar network of elevations, provides an accurate base for the production of topographic maps and navigational charts, the determination of national, state and local boundaries and private property lines, the planning and construction of highway systems, geologic and hydrographic surveys, the planning of space flights, and irrigation, flood control, and hydro-electric projects, among others.

Scientific benefits include the contribution the updated network can make to knowledge of the size and shape of the earth, to the ability to measure long-term crustal movements involving the continents, and to techniques for predicting earthquakes.

The team that tested the location of offshore oil platforms established the latitude and longitude of two oil platforms in the Gulf of Mexico, 40 and 100 miles off the Louisiana coast, by making doppler observations on a Navy navigation satellite with a geodetic receiver.

Not very accurate

NOAA scientists point out that at present boundaries of oil leases are not sufficiently accurate to allow complete development of petroleum deposits because of the possibility of encroaching on adjacent leases. It has been difficult to determine the exact dimensions of leased areas, and some boundaries are said to be significantly off.

The satellite-doppler-effect system, it is explained, could also delineate areas of ecological concern more accurately, thus affording these areas greater protection. The system can extend the limits of land-based geodetic controls into marine areas, benefiting all forms of marine development, including fisheries, seabed mining, and nautical charting.

J. D. D'Onofrio, Chief of the National Geodetic Survey's Satellite and Marine Applications Section, said it is difficult to determine the latitude and longitude of platforms which are out of sight of shore through normal land surveying methods.

He pointed out that NOAA geodetic survey teams use portable towers in land measurements to overcome the loss of sight occasioned by the earth's curvature. While this system of geodetic measurements can be used at sea for some existing platforms, it is costly and time-consuming and cannot be used where platforms are widely spaced.

With offshore oil development pushing further and further to sea, another method had to be devised. D'Onofrio believes the system tested in the Gulf of Mexico is the best "until better technology comes along."

He anticipated that when the Peterkin-Perryman team's data have been processed, it will show that the position of the oil platforms will have been determined within an accuracy of plus or minus six feet, well within the accuracy range of determinations made on land.

The method by which positions on earth may be determined by tracking orbital satellites employs a principle first postulated in 1843 by the Austrian physicist Johann Christian Doppler. Under the doppler effect, as it has been known, as a source of wave motion approaches or moves away from the observer, the frequency of the waves received by the observer increases or decreases. This phenomenon is known to everyone who has heard a train whistle, with the pitch changing as the train approaches and disappears. The same phenomenon occurs with the radio waves emitted by an orbiting satellite. The Navy Navigation Satellite System consists of six satellites in polar orbits of 600 to 750 miles above the earth.

Requested by group

The test survey was requested by the Offshore Engineering Company, a New Orleans-based group representing major oil interests in the Gulf of Mexico, where hundreds of oil platforms dot the water for a distance of 150 miles from shore.

In remeasuring the U.S., the Geodetic Survey teams supplement the work of eight geodetic field parties, consisting of about 180 engineers and technicians, which are measuring both distances and elevations in the country. Since the earth is constantly shifting, the work is continuous and has been going on for more than a century and a half. The number of doppler geodesy teams may be increased later and may eventually replace some of the more conventional survey groups, which normally consist of 15 to 20 men.

Several advantages

The doppler geodesy system has several advantages over other surveying programs. It provides an independent check on the accuracy of long-distance measurements accomplished by more conventional methods. It can furnish geodetic accuracies at remote locations where conventional geodetic methods would prove too costly and time consuming, including mountainous areas where helicopters can transport teams and their equipment.

With only 500 watts required to power the equipment, a hand portable motor-generator can be used in remote areas.

The system will be especially useful in Alaska, where work will begin this summer in remeasuring remote land areas, including those disrupted by the 1964 earthquake. It can be used to determine more accurate positions of remote islands and U.S. possessions and unify these points into one common system of measurements (the North American Datum). It can determine more accurately the position of ships at sea, is not affected by weather, and represents a a considerable saving in money and time.

Corporate Profits Down $1.6 Billion, Revised 4th Quarter Figures Show

Before-tax book profits of corporations declined $1.6 billion in the fourth quarter of 1973 to a seasonally adjusted annual rate of $127.4 billion, according to revised estimates by Commerce's Bureau of Economic Analysis. The preliminary figure issued a month ago was $128.1 billion.

Corporate profits tax liability is now estimated at $55.7 billion at a seasonally adjusted annual rate, compared with $57.6 billion in the third quarter. After-tax earnings, at $71.6 billion, were about the same as in the preceding quarter. Dividend payments rose $900 million to $29 billion, and retained earnings decreased $800 million to a $42.6 billion annual rate. Corporate capital consumption allowances rose $2.5 billion to $74.2 billion. Corporate cash flow —capital consumption allowances plus retained earnings—reached $116.8 billion, up $1.7 billion from the third.

The book profits measure includes gains or losses due to the difference between the replacement cost of goods taken out of inventory and the cost at which they are charged to production. When BEA measures profits for national income purposes, such inventory gains or losses are excluded through an "inventory valuation adjustment."

Fourth quarter inventory gains are estimated at $15.5 billion, $1.5 billion below the third quarter rate. As a result, the revised national income measure of pretax corporate profits is $111.9 billion, about the same as for the third quarter.

Estimated profits of manufacturers decreased from $51.9 billion in the third quarter to $49.2 billion in the fourth; more than half of the decline occurred in the automobile industry. Earnings in the transportation, communication, and public utilities group declined from $10.3 billion to $9.1 billion. However, dividends and branch earnings from abroad increased substantially. There was a further increase in profits of financial institutions.

Everything else up

National income, which measures the nation's output in terms of incomes generated in production, increased $27.7 billion (revised) to $1,095.1 billion. All components of national income except profits rose in the fourth quarter. Employee compensation reached $814.7 billion, up $20.7 billion. Farm income rose to $31.3 billion from a third quarter rate of $27.1 billion. There were small gains in business and professional income, rental income of persons, and net interest.

Fourth quarter national income gains were recorded for most industry divisions. Above average relative increases occurred in income originating in agriculture and in the net inflow of investment income from abroad. Below average increases were recorded for mining, manufacturing, and trade. There were small decreases for communications and the public utilities.

Symposium To Spur Innovation Through Federal Procurement

"But will it sell in Washington?" That's the question that, hopefully, U.S. manufacturers of products incorporating the latest technical innovations will be asking themselves from now on.

The U.S. Government is now in the business of spurring progress through its procurement policies, and a May 30-31 symposium will seek ways of doing it. Hosted by the National Bureau of Standards at its Gaithersburg, Maryland, headquarters, the symposium will be sponsored by the General Services Administration's Federal Supply Service and NBS's Experimental Technology Incentives Program.

Representatives of leading research and development firms, trade associations and federal procurement specialists from various agencies will focus on methods of procuring high-innovation items with promise of strong consumer benefits.

After its initial plenary session, the meeting will break up into nine workshops, with commodity specialists discussing: office machines; automatic data processing and peripheral supplies; containerization/packaging; optical and electrical instrumentation; photographic and audio-visual items; furniture; chemical coatings, cleaning agents and detergents; electrical equipment, and automotive products.

Each workshop will prepare a report on how the government can encourage technological innovation through procurement, the effect of such innovation on the consumer marketplace, and means of continuing the government-industry dialogue.

In addition to procurement, other basic ETIP approaches to the goals of strengthening the U.S. economy and improving the quality of life involve Federal regulatory practices, public support to civilian research and development, and encouragement of small technology-based firms.

Some 40 ETIP experiments are now in process, addressed to such national priorities as energy conservation, environmental protection, improving the nation's productivity, new modes of federal-state cooperation, promoting the welfare of small businesses, and reducing the impact of technological crises.

Coastal Grants Could Benefit Firms In Maine, Oregon, Rhode Island

A total of $634,547 in federal grants has been awarded to Maine, Oregon and Rhode Island to assist in their development of coastal zone management programs which could prove of significant interest to business in those states.

The grants are the first to be made by Commerce's National Oceanic and Atmospheric Administration under the Coastal Zone Management Act of 1972. The grants include $230,000 to Maine, $250,132 to Oregon, and $154,415 to Rhode Island. Each state contributes a matching share which must by law amount to one-third of the total program cost.

Maine's first year of work under the program is a three point effort. The first element, a land and water capability analysis, includes aerial photography and interpretation, natural resource data compilation, socio-economic data analysis and planning, planning reports for the "Down East" region, and a critical areas program for southern coastal Maine. The second element involves studies of fisheries and aquaculture, lake resource analysis, hydrology and surficial and bedrock geology data compilation. The last work element is a local and regional citizens participation program which includes a resources inventory, alternative futures preparation, and a public opinion polling program.

Oregon seeks alternatives

Oregon's program calls for development of alternative implementation programs for the coastal zone management plan, an evaluation of land and water use development pressures on coastal natural resources and a study of planning and regulation in the coastal region. Also planned is a series of resource inventories. Final elements include collection of basic environmental data, the development of recommendations for an information storage and retrieval system, and a public information program.

In Rhode Island, first year of work under the coastal zone grant will include a resource inventory, a commercial fisheries survey, a sand and gravel extraction study, lease fees structure study, environmental impact guidelines, a socio-economic baseline data compilation, shoreline use guidelines, a salt marsh quality analysis, an energy requirements study, a marine recreation review, and legal studies.

Second Quarter Petroleum Exports Steady; Some Base Periods Changed

Export quotas for petroleum products other than crude oils in the second quarter will remain at first quarter levels of 96,300 barrels a day. However, changes in the base period for determining exporters' shares of the country quotas for exports of butane, propane, and natural gas liquids have been announced.

Commerce Secretary Dent has also announced a revision of the rules concerning crude oil not technically subject to the export restrictions of the Alaskan Pipeline Act because it is not transported by pipeline over federal rights-of-way. He announced that in the future such exports will be licensed only if they meet two conditions: (1) they will be processed and returned to the United States as an equal or larger quantity of imported petroleum products; (2) the exporter has demonstrated that due to circumstances beyond his control he could not dispose of such crude domestically without incurring a substantial economic hardship.

Secretary Dent stated that the new provision fully implements the Congressional intention of making all United States crude subject to export control expressed in the companion Alaskan Pipeline Act and the Emergency Petroleum Allocation Act. The new provision also supports the efforts of the Federal Energy Office, under the Emergency Petroleum Allocation Act of 1973, to raise utilization of domestic refinery capacity to optimum levels.

Exporters' shares of the country quotas for exports of butane, propane, and natural gas liquids in the second quarter will be determined using April 1 to June 30, 1973, as the base period instead of the base period Jan. 1, 1971 through June 30, 1973. The Secretary said that the new base period was adopted because many exporters of these products began exporting after June 1972. The period from Jan. 1, 1971, through June 30, 1973, remains the basis for second quarter export quotas of all other petroleum products.

'Still necessary'

"Despite increased availability of petroleum products, export quotas remain necessary to permit the United States to carry on certain historic exports with countries from which we import vastly larger amounts, and to help assure that our historical export levels will be maintained," Secretary Dent said.

Starting with the second quarter, exporters of carbon black feedstock oils will be permitted to combine into a single shipment to one country, two or more of the various individual country quotas that have been alloted to them for a calendar quarter. However, as a condition to licensing in such cases, exporters will be required to assure that, on an annual basis, each affected country will receive its historic share of the exporter's shipments. This new rule will allow efficient and economical use of the large tankers in which carbon black feedstock oils are shipped.

Falling Birth Rates Have Implications For U.S. Business

A major factor in the nation's declining birth rate, with the implications it may hold for future demand and economic levels, has been a trend away from early marriages and child-bearing on the part of women.

This is revealed in a report entitled "Fertility Histories and Birth Expectations of American Women: June 1971" recently published by Commerce's Bureau of the Census.

The report submits data indicating that the long-time trend toward early marriages was reversed 15 years ago. As a result, only 17 percent of the women born from 1950 to 1955 married by age 18 in contrast to approximately 30 percent of the women born from 1935 to 1939.

The decline in early marriages is paralleled by a drop in fertility levels for young women 18 years and younger. The drop was from 204 per 1,000 women among those born from 1935 to 1939 to 104 per 1,000 women among those born from 1950 to 1955.

The report says the decline in fertility is not simply a result of changes in ideals and values among young women because older groups of women have also begun to reduce their rates of childbearing.

The record of the nation's fertility since World War II, according to the report, was one of a rapid rise in the birth rate to a high level that persisted for about a dozen years after the end of the war. The decline that has occurred since was especially sharp between December 1970 and November 1973, dropping to levels of fertility that appear to be lower than any previously on record for the nation.

"The rapid change from relatively high levels of fertility to levels approaching those of mere replacement," the report says, "has generated much interest in the causes and possible consequences."

The report, which is an outgrowth of this interest, relates that women born in 1940 to 1944 are expected to have about 680 children per 1,000 women during the period when they advance from 25 to 30. By contrast, women born from 1935 to 1939 had 800 children per 1,000 women from age 25 to 30, and those born from 1930 to 1934 had 946. The report says that similar trends toward lower fertility appear in the number of additional children women have between the age of 30 and 35.

A reduction in fertility levels, the report explains, also is reflected in the proportions of women experiencing births by a given age. It is estimated, the report says, that 57.4 percent of the women born in 1945 to 1949, and who were 22 to 26 at the time of the survey, will have borne their first child by age 24. This contrasts with 67.4 percent of those born 1940 to 1944 and 71.1 percent of those born 1935 to 1939.

Changing values

"Evidence that the drop in fertility levels is based on changes in ideals and values regarding family size," the report comments, "can be seen from the data on birth expectations of American women with respect to the number of children they foresee having during their lifetime.

"As late as 1967 wives in the 18 to 24 year age group expected to have an average of 2.9 children per wife. By the time of the 1971 survey the expectations had dropped to 2.4 children per wife. Subsequent surveys for 1972 and 1973 show an expected average of 2.3 children per wife."

The report says that evidence from the June 1971 survey indicates that illegitimacy continued to rise from the 1930s to the 1960s, "although younger women may have been somewhat more willing to admit that they had children before marriage than did older women."

Three Brochures Aid Business Visitors At New York Airports

A trio of recently-published brochures will help businessmen arriving by air in New York to find their way around after landing.

The numerous ground transportation facilities available between Kennedy International and La Guardia Airports and points in the New York-New Jersey Metropolitan area are detailed in foldout map/guide brochures issued by the Port Authority of New York and New Jersey as a service to air passengers. The guides list the bus and limousine services to and from the airports including schedules, fares and telephone numbers. Color maps showing the scheduled transportation routes as well as terminal locations, parking lots and major highway access routes are also included.

A similar guide for Newark International Airport is also available. Copies of all three brochures can be obtained free of charge by writing to the Port Authority's Aviation Services Division, Room 65N, One World Trade Center, New York, N.Y. 10048.

SEARCHING—*An ambitious and immediate research and development effort is needed to make full use of all possible energy resources if the United States is to achieve self-sufficiency, according to Commerce's top technology official.*

R&D Drive Seen Holding Key To Long Term Energy Solution

An ambitious research and development effort, highlighted by formation of a federal energy administration, is crucial to achieving U.S. self-sufficiency in energy, in the view of Commerce's leading scientific authority.

Dr. Betsy Ancker-Johnson, Assistant Secretary of Commerce for Science and Technology, told the annual meeting of the Sea Space Symposium in St. Thomas, Virgin Islands, that the "speedy establishment of the Energy Research and Development Administration is a crucial first step" in reaching the goal of energy self-sufficiency.

Drawing on the work of the Congressional Joint Committee on Atomic Energy, Dr. Ancker-Johnson emphasized that present projections of U.S. energy supply in the year 2000 may be optimistic, and that much-needed research and development should begin immediately.

She outlined several promising areas for energy research, including coal gasification, nuclear fission, tertiary oil recovery techniques, solar energy, and ocean-thermal technology. There are major technical problems to be resolved before any of them can make a substantial contribution to solving the energy problem in the United States, she added.

"The Joint Committee, in making projections, sees solar energy adding to our supply only by heating water, and by heating and cooling buildings. Scientific breakthroughs are essential if that small exploitation of solar energy is to be noticeably increased," she said.

Most promising

Nuclear fusion, which holds the most promise as a permanent solution to the world's power needs, might become a commercial reality before the end of the century in Dr. Ancker-Johnson's opinion. After the euphoria surrounding the issue just after World War II, when scientists considered themselves just a step away from solving the problem of controlled thermonuclear fusion, the complexity of the process soon became evident and its prospects seemed somewhat limited. But with the 1970s experiments designed according to theory actually began behaving as expected, according to Dr. Ancker-Johnson, giving rise to renewed optimism.

"The possibility of obtaining power from fusion has yet to be demonstrated, but my personal conviction is that the quest for fusion power will be successful," she concluded.

Computer's Public Uses To Be Probed

Automation technology can help the handicapped become self-reliant, aid firefighters in locating and saving potential victims, reduce mining hazards, assist towns in handling their trash problems, and in a hundred-and-one other ways prove itself socially as well as commercially profitable. Achieving such public service applications for computers will be the subject of a May 21-22 conference at Commerce's National Bureau of Standards in Gaithersburg, Md.

The conference's seven sessions will focus on applying remotely controlled devices, sensor-activated computers and other automated systems to socially desirable goals.

Dr. Ruth M. Davis, Director of NBS's Institute for Computer Sciences and Technology said "automation technology, fortunately, is entering a new era in which its applications can provide direct benefit to all segments of society. These applications range from making underseas mining possible to providing safer working environments and better quality services for all individuals. Automation can now help stop the dehumanization trend we have all feared."

Davis said the conference also will explore the competitive position of American industry in relation to automated foreign technologies and consider the psychological and social benefits and consequences of relieving workers of tasks that are boring or unsafe.

Sessions will cover: Automation technology as a key to improving public service productivity; Economic and social views of automation; Urban public service applications; Occupational welfare; Aids to the handicapped; Recovery of ocean resources; Recovery of underground resources; Impact on the public, and Automation's applications to transportation.

For full details contact ICST's Grace Burns at 301-921-2731.

Calendar For Businessmen

May 15 — Seattle — Public hearing on incidental taking of mammals in commercial fishing operations, 9:30 a.m., Lopez Room, Seattle Center.

May 21-22—Gaithersburg, Md.—Symposium on public service applications of automation technology, National Bureau of Standards. Contact Grace Burns at 301-921-2731.

May 30-31—Gaithersburg, Md.—Symposium on spurring product innovation through federal procurement practices, National Bureau of Standards. Contact Stan Lichtenstein at 301-921-2768.

Port Expansion In Portugal, France, Spain Signals Good Market For U.S. Equipment

Port and industrial development projects in Spain, Portugal and France present opportunities for the sale of a wide range of equipment and services, many still not explored by U.S. suppliers. So reports a six-man Port and Industrial Zone Trade Mission that recently took a good look at these markets.

Commerce's James M. Devlin, who directed the group, believes that the opportunities are not being realized in large measure because of a lack of promotion by U.S. producers, particularly in Spain and Portugal. With their eyes mainly on the Common Market, such producers are missing their chances in the Iberian countries. They have thus allowed European suppliers to maintain and expand sales—even though the dollar devaluation and rising European production costs have strengthened the U.S. competitive position.

The companies represented on the mission were offering a variety of equipment including container-handling lift trucks, hydraulic cranes, bulk-materials-handling equipment, LPG carburetion for fork-lift trucks, truck attachments, oxy-gasoline metal-cutting torches, personnel lifts; and engineering and design services.

In Lisbon, Barcelona, and Paris the participants talked with buyers, agents, distributors, end users, engineering consultants, government representatives, and port authority officials. They toured harbor facilities in Barcelona and Lisbon. Both of these important southern European ports have been registering a sizable increase in traffic volume, and in both, expansion projects are under way.

"The amount of business which can be done and the opportunities these markets offer far exceeded the expectations of the mission members," said Devlin. "This was especially so in Portugal and Spain where the business community was pleased that U.S. firms not yet active in the market were showing an interest in developments there."

At the close of the mission, the members reported that a representation agreement had been concluded and another 23 were under consideration. Some $60,000 worth of direct sales were made, and 12-month projections total more than $1.3 million.

Expansion in each country

Major projects in Portugal include port and industrial development at Sines Peninsula, Lisnave, and Setanave—all scheduled for completion in the 1970s. Portugal has been characterized as a major ship repair center.

As for Spain, fully a third of its requirements for materials handling equipment are met by imports, and Barcelona, the country's industrial and commercial hub, is growing constantly as it tries to keep pace with expansion in all sectors. A major new shipyard and drydock facility is being constructed at Cadiz.

In France, port development projects are under way in Marseilles/Fos, Le Havre, and Dunkirk. Le Havre, the country's second

IN BARCELONA—*Mission member Norman D. Riesen (second from right) interviews potential agents for his company in Spain.*

In Lisbon, mission member Walter Pfeifer (center) describes his company's equipment to prospective customers in Portugal.

leading port, is constructing tanker berths, a nitrogen plant, a cement factory, and other facilities valued at more than $140 million. The country's shipbuilding industry has been growing rapidly, and the materials handling market is expected to top $1 billion by 1977.

"The mission was a breakthrough for our products," commented Eckhard W. Boehm of Little Giant Products, Peoria, Ill.; "The market looks good for fork-lift truck attachments, particularly hydraulic attachments, in Spain, Portugal, and France." Ronald F. Carson of Carson Engineers, Greensburg, Pa., found that opportunities exist in Spain and Portugal for industrial and environmental engineering services. And Walter Pfeifer, Engineering Equipment Co., Chicago, observed that "there appears to be a good potential market for container handlers and hydraulic cranes in Portugal and for heavy duty fork lifts in Spain."

Robert N. Jones of J & S Carburetor Co., Dallas, Norman D. Riesen of West Bend Equipment Corp., West Bend, Wis., and O.J. Sparrow, Petrogen International Ltd., Richmond, Calif., developed significant contacts from their participation on the mission.

The Port of Marseilles-Fos Authority, to assist U.S. firms interested in use of its Europort South zone for heavy industry or in supplying equipment and services in the port's supertanker expansion projects, has opened an office at 1350 Ave. of the Americas, New York 10019, telephone 212-586-6008.

Mission Sells Metal Finishing Equipment In Eastern Europe

Sales prospects for a variety of metal finishing equipment and processes are substantial in Poland, Romania, and Hungary in the months just ahead. This is a conclusion of a recent U.S. trade mission on metal finishing equipment to these three countries.

The U.S. businessmen succeeded in making direct contact with many of the likely end-users of the metal-finishing products and processes of the companies represented, according to Mission Director J. Mishell George of the Commerce Department. In each capital, the group talked with officials of the appropriate ministries and foreign trade enterprises, and in several cities with plant managers. At the U.S. Trade Development Center in Warsaw, mission members Edward D. Bennett of the EBway Corp., Union, N.J. and Vincent D. Cassone of Easco Sparcatron, Ann Arbor, Mich., conducted a well-attended seminar that proved to be helpful in facilitating speedy arrangements for consultations with appropriate technicians and end-user enterprises.

As a result of the 12-day visit, the mission came back with immediate orders totaling more than $2.3 million and anticipates sales within 12 months of some $36 million. Signing of a substantial number of license agreements and several joint ventures also are anticipated within a year. More than 50 export leads were obtained, together with a considerable number of leads for sales representatives and for license agreements and joint ventures.

All three countries have programs for industrial modernization and expansion. Poland's economic plan for 1974 calls for an 11 percent increase in industrial production, and envisages a 20 percent increase in foreign trade. The 1974 outlook in Hungary is for continued expansion of exports and a parallel increase in imports of high-technology items from the West. Romania's policy of rapid industrialization is reflected in the country's effort to complete the 1971-75 Development Plan ahead of schedule.

The mission members noted particularly the increasing emphasis in these countries on procuring advanced and technical data and equipment directly from the United States, George pointed out. Equally significant during most discussions, he said, was the desire of these countries to obtain technology, equipment and plant which would permit them to increase the scope and level of their exports to western markets, including the United States.

Among the kinds of products and equipment that drew the strongest interest were grinding and drilling machines, turret lathes, die casting machinery, electroerosion machinery, stamping dies, polishing compounds, and rubber bond abrasives.

Mission members, in addition to those already mentioned, were: Nathan Adler, Pekay Abrasives, Inc., Upper Montclair, N.J.; R. H. Muller, Metco, Inc., Westbury, N.Y.; R. M. Tychanowicz, Chicago Pneumatic Tool Co., New York; and Anthony Yen, Yen Enterprises, Inc., Cleveland. Mishell George, who headed the group, is Director of the Office of the Joint Commission Secretariat of Commerce's Bureau of East-West Trade.

PLANT VISIT NEAR BUDAPEST—*U.S. mission members pause for photo with Hungarian trade and industry officials just after touring Evig electric motor factory. Mission Director Mishell George is third from left; on his left, Nathan Adler; Anthony Yen and R. M. Tychanowicz, third and second from right; extreme left, Donald Kursch, U.S. Embassy.*

U.S. Firms Invited To Exhibit Mining Equipment At Peru Fair

U.S. firms will have an opportunity to exhibit mining equipment in Peru next fall, when the U.S. Embassy and the Commerce Department sponsor an official U.S. pavilion at the World Mining Fair, TECNOMIN '74. The fair will be held in Lima, Nov. 3-12. The 8th World Mining Congress, to be held in conjunction with TECNOMIN, will draw government mining officials and private mining executives from throughout the world. Attendance from Latin America is expected to be heavy.

Other countries expected to exhibit at the fair include Canada, Czechoslovakia, Finland, France, West Germany, England, Italy, Japan, Poland, Sweden, and six Latin American countries. Machinery and equipment for exploration, excavation, processing, construction, and research qualify for participation.

U.S. companies interested in participating in TECNOMIN '74 should contact Richard Rueda, Commercial Attache, American Embassy, Lima, Peru.

U.S. Technical Seminars In North Africa, Europe Spark Buying Interest

A substantial number of business contacts for U.S. firms have resulted from two U.S. technical sales seminars held abroad earlier this year. A panel on air traffic control equipment and systems held meetings in Greece, Algeria, and Morocco. Another, on advanced business systems, conducted sessions in Austria, Hungary, and the USSR. Both groups were comprised of company representatives and government officials.

Sizable sales seen

During the seminar sessions, arranged by the Commerce Department to combine technological discussions and sales through face-to-face business contacts, the U.S. representatives talked about applications of advanced technology and recent new developments in their fields. Following the sessions, the company representatives met with key management and technical officials to discuss new equipment purchase plans.

Participating in the air traffic control seminar were top level civil aviation officials in the three countries. Because of the long lead time involved in such equipment purchases, immediate sales were not expected, but sales in the next 24 months are projected at more than $14 million.

The advanced business systems group found prospects encouraging for U.S. sales related to expanding and modernizing business and office methods in Eastern Europe. The sessions were exceptionally well attended in Budapest and Moscow.

Participating groups

Chairman of the air traffic control panel was Gustav Lundquist, Associate Federal Aviation Administrator for Research and Engineering. Other members were John R. Butt, ITT-Gilfillan Division; Henry S. Donaldson, Sperry Univac; Merrill T. Ludvigson, Collins Radio Co.; Kenneth L. Lueke, International Technical Products; Calvin F. Phillips and Don W. Callender, Westinghouse; Blaine K. Stevens, Lockheed Electronics; George A. Tuttle, Texas Instruments. Also part of the delegation were: Charles Dowling, FAA bureau Brussels; Edward Whitman and Leonard Dwor, Regional Civil Air Attaches; and James Wilkes, seminar coordinator, Commerce Department.

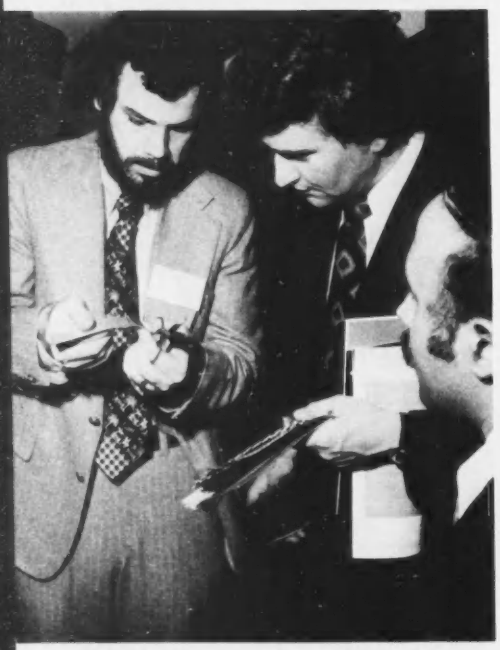
Participating companies and their representatives in the advanced business systems seminar were: General Binding Corp., Victor Coural; Hewlett-Packard, Peter Reifer; Nashua Corp., Erik Skoug; Sperry Remington, Fred Haenni; Sperry Univac, Romuald Slimak. Seminar chairman was Peter McCloskey, President of the Computer and Business Equipment Manufacturers Association. The coordinator from Commerce was Ed E. Bridges.

AIR TRAFFIC CONTROL GROUP—*Gustav Lunquist (center, with glasses, facing right), and members of air traffic control seminar team inspect Algiers Airport control tower.*

BUSINESS SYSTEMS GROUP—*Peter McCloskey (standing), chairman, is shown moderating the advanced business systems technical sales seminar session in Vienna.*

Technical sales seminars are particularly useful export promotion vehicles in high-technology industrial sectors where information dissemination is an important part of the sales process. Attendees at the sessions have almost always been eager to make follow-up appointments with many of the U.S. seminar participants.

Additional technical sales seminar events are to be held later this year. Sessions on telecommunications are scheduled for Romania, Yugoslavia, and Poland, in September; and on food processing and packaging equipment, for Thailand, Malaysia, and Indonesia in November.



COMPOSANTS '74—*U.S. electronic components sold well last month at international trade fair in Paris. Above, interested buyer gets details from U.S. exhibitor Jackson Burnett (left) of Woven Electronics.*

U.S. Products Sell Well At Fair Of Electronic Components In Paris

Digital, analog and hybrid integrated circuits were among the best sellers last month, in the Commerce-sponsored American pavilion at Composants 74, international trade fair for electronic components. The fair is held each year in Paris. Other very successful items were opto-electronic components, transistors, semi-conductor diodes, and detachable connectors and terminals.

The 30 exhibitors in the U.S. section representing 38 electronic manufacturers sold almost $350,000 worth of equipment during the show. More than $18 million worth of sales are forecast for the year following. The new-to-market or new-to-export firms are expected to sell about $15 million of this amount. The 12 exhibitors seeking representation made 14 agency arrangements and had 71 under negotiation at the close of the show. On a per-capita basis, results were more than triple the figure in the 1972 Composants fair in which Commerce also participated.

"The outstanding pre-show promotion brought traffic to our stand beyond our wildest imagination," the Hamilton Avnet representative commented at the show's conclusion.

U.S. Exhibition Results In Brief

The following summary reports have been received on U.S. overseas commercial exhibitions. Further details and marketing data derived from these exhibitions will be published as available.

Prefabricated Housing Systems and Modular Construction Units. Tokyo Trade Center. April 18-20. Exhibitors, nine, of which six new-to-export, three new to market. Representation agreements signed, one; 14 agreements and one joint venture under negotiation. Trade visitors, 977.

Nuclear Instrumentation. Frankfurt Trade Center. March 18-21. Exhibitors, 29, representing 39 firms. Total 12-month sales projection, about $10.8 million, of which the 13 new-to-market participants project $4.25 million. Agency agreements concluded, four; nine others under negotiation.

WIDESPREAD RESULTS—*At Mexico City U.S. Trade Center show last summer, Patrick O'Flynn (right), instrument sales representative for Latin America, Hycel, Inc., Houston, explained accuracy and speed features of company's Mark X blood analyzer to Dr. Ernesto Ochoa, laboratory director of Spanish Hospital. As a result of contacts developed during this medical equipment exhibition, O'Flynn reports that several machines have been sold, in Mexico City and Queretaro, and in Venezuela.*

TWO-COMPANY EXHIBITION—*Display above is one of two that comprised the Bayliner Pleasure Boat and Fibre Glass-Evercoat Exhibition at the U.S. Trade Center in Tokyo recently. Sales prejection for next 12-month's is $170,000.*

Worldwide Business Outlook

Inflation, Limited Manpower Pose Problems For Israel

The direction that the Israeli economy will take is more uncertain than it has been for several years. Inflation and limited manpower pose the biggest problems, reports the U.S. Embassy in Tel Aviv.

The boom which began in late 1967 is now in its seventh year, and if not curbed will reach a state of severe overheating. The consumer price index rose 26.4 percent in 1973, double the rate in the two preceding years, and the highest rate in 20 years.

The government hopes to slow inflation down in 1974, but indications suggest that it will likely exceed last year's rate. Consumer prices rose 12 percent in the first two months of 1974, while wholesale prices rose rather more strongly. Inflation may amount to 30-35 percent this year.

Major impact

The Fourth Arab-Israel War in October was relatively long and difficult, and will have a major impact on fiscal policy and investment in 1974. The government budget request for the coming fiscal year is nearly twice the size of the budget of two years ago in current prices; a large proportion of this will go for defense. The public sector will invest a large amount of money in defense industries, while defense orders placed with private firms will be so large that they will require a significant increase in private investment by defense-oriented firms. Imports of defense goods, mainly from the United States, will also be very high.

The real increase in gross national product is estimated at 3.6 percent in 1973 (less than half what it would have been without the war), and is forecast to rise 6.9 percent in 1974. The GNP in 1973 is estimated at IL 36.5 billion ($8.7 billion at the official exchange rate), or IL 11,240 per capita ($2,675). During 1974, the government will spend directly over 70 percent of Israel's GNP.

Taxes and other compulsory payments were raised in recent months, as were the controlled prices of key commodities when the level of subsidization was reduced. However, transfer payments to the public from the government have been increased, and two cost-of-living adjustments aggregating 20.8 percent payable on base pay up to IL 700 per month (i.e., a maximum IL 145 per month) were awarded during January and February.

Basic wages will be the subject of negotiation between the Histadrut (General Federation of Labor) and employers beginning soon, as biennial wage agreements expired March 31. The expectation is that these negotiations will be protracted and difficult.

The government has called for a reduction of 4.3 percent in real private disposable income per capita in 1974, in order to devote a larger share of the national product to defense. However, organized labor is certain to resist this proposal. Workers are concerned at the inroads on real income which inflation has made, and can be expected to present stiff demands. It may prove difficult to implement a reduction in personal income.

Labor is in a strong bargaining position, since unemployment remains very low at 2.7 percent, while about 50,000 Arabs from occupied territories are working in the Israeli market. Moreover, despite the evident inflation, the government apparently remains relatively more concerned that a higher rate of unemployment be avoided.

The balance of payments is expected to run a deficit of $3 billion on goods and services in 1974. However, a large capital inflow approximating $2.5 billion is also expected, including more than $1 billion in financial assistance from the United States. The worldwide inflation of prices has had an adverse impact on the terms of trade, raising import prices more than export earnings. The movement of prices will have much to say about the payments situation in 1974, but this is hard to forecast. Israel's record $1.8 billion in foreign exchange reserves at the end of 1973 will cushion any adjustment which may be required.

Heavily influenced by the war, foreign debt soared to over $5 billion, i.e., about $1,515 per capita, at the end of 1973. However, over 90 percent of the debt is in long-term maturities (over five years), much of it at concessional rates of interest deriving from U.S., West German and World Bank assistance programs. A further large part is attributable to relatively low interest Israel bonds.

Israel's ability to service its foreign debt has been rising along with the debt, and generally at a faster rate. The war set this trend back somewhat; however, while heavy in absolute terms, debt service requires a much smaller proportion of Israel's foreign earnings than ten years ago, and Israel remains creditworthy.

Israel's imports this year will reflect two separate developments super-imposed on the long-term trend: accelerated purchases of armaments, defense materiel, and investment goods, and production inputs for domestic defense industries; and the average citizen's desire to convert his money into goods before its value is further eroded by rising inflation.

There are indications that U.S. goods have been, in general, competitively priced vis-a-vis major competitors since the second devaluation of the dollar a year ago. Israeli imports of U.S. goods (excluding arms) rose in 1973 to $549 million, as against $368 million in 1972. The increase, however, failed to keep pace with the rise in imports in general, and the U.S. share of the Israeli market sagged to a new low (of 18.8 percent) for the second straight year.

The value of imports from the United States was supported by the sale of one Boeing 747 (none in 1972), and unusually steep increases in agricultural commodity prices. Without these factors the increase in imports from the United States would have been much less impressive.

The Embassy continues to hear that American manufacturers are not taking the Israeli market as seriously as competitors, probably because of the size of the market and its distance from the United States. Moreover, some American firms evidently prefer to sell to Israel from European subsidiaries.

Not keeping pace

The introduction of new American brand names and product lines to the Israeli market has not been keeping pace with the rapid rise in affluence and willingness to buy (though the war temporarily interrupted this development). American goods enjoy a good reputation for quality and versatility but, with a few notable exceptions, an indifferent-to-poor reputation for after-sales service.

In the case of products where high reliability is important—for example, in hospital equipment and in machinery for continuous production—the lack of adequate service can be a severe deterrent to sales. The commercial opportunities warrant more assiduous attention to this dynamic market; competitors have been steadily expanding their market shares at U.S. expense.

Israeli businesses face a problem in the relatively small size of the local market and consequent short production runs. This obliges them to consider carefully the flexibility and versatility of capital equipment which they buy; they are often ready to pay a premium price for these characteristics.

In view of high wage rates and persistent labor shortages (particularly skilled labor), there is an excellent market for time and labor-saving metalworking and finishing machinery and equipment, especially that which does not require great sophistication to operate. A trade mission of the U.S. machine tool industry which visited Israel in February was favorably impressed by the opportunities which the expansion of defense industries offers this year.

Electronics production equipment and components are in strong demand in this

defense-related area. The 1973 war accelerated demand for electronic equipment, and the United States is among the most highly regarded suppliers.

Power generating equipment continues to be in demand. Frequent power failures have stimulated a demand for standby generators in most sectors of industry, and in the occupied territories. The United States has not hitherto been an important factor in the supply of small and medium-sized generators. The government expects to let bids for a 600-megawatt nuclear power station in five or six months. The station should be operational by 1981 if construction proceeds on schedule.

The market for instrumentation is growing relatively more sophisticated. The chemical industry, based in large part on local raw materials, will be expanding during the next few years; it produces fertilizers, petrochemicals, rubber and plastic products. As a result of expansion, it will require a range of instrumentation and allied equipment. The field of process control instrumentation, relatively new in Israel, is opening up as a result of increasing automation and more careful quality control, which is being introduced through demand from the defense and international markets.

There continues to be an excellent market for well-conceived ideas and processes for speeding up construction at building sites, as well as for introduction of prefabrication techniques.

Venezuela Welcomes Trade As Key Growth Ingredient

There is good reason for optimism in projections of future U.S.-Venezuelan trade relations, according to George Falk, Commercial Officer at the U.S. Embassy in Caracas.

The steadily climbing volume of U.S. exports to Venezuela gives no indication of peaking in the foreseeable future. In 1973 the United States chalked up over a billion dollars in sales to Venezuela and the economic barometer continues to point to a period of unparalleled trade expansion between the two countries.

Venezuela's recently installed government, clearly expansion-oriented, has announced its intention of developing the nation's industrial and agricultural sectors. With the stimulus of additional revenues reaped through recent increases in the price of petroleum, these goals should be attainable.

In terms of natural resources Venezuela is endowed with an abundance of assets which facilitate a vigorous development program. Oil revenues that may yield some $8 to $9 billion in 1974, compared to $1.8 billion in 1972, will unquestionably play a major role in the nation's future economic growth. Additionally, Venezuela possesses vast reserves of iron ore which provide raw material for a rapidly growing steel industry and for establishment of several iron ore reduction plants.

Venezuela is rich in sources of hydroelectric energy, such as the Guri Dam generating plant, which alone is expected eventually to produce six million kilowatts. Its large resources of petroleum and natural gas give rise to Venezuela's rapidly growing petrochemical industry now taking hold at the El Tablazo complex in Maracaibo and elsewhere in the nation.

Venezuela's ideal climate, its beaches, and other attractions lend themselves to an ever-growing tourist industry which constantly requires additional facilities of all types. The potential of the fishing and cattle growing industries seems unlimited with 1,700 miles of coastline and vast tracts of cattle-grazing land. Agriculture, too, seems ripe to come into its own with abundant farm lands combined with an almost year-round growing season.

U.S. enterprise will have a role

But "ingredients alone do not make a cake" and the newly-installed government is actively engaged in preparation of a recipe that may yield a healthy, stable and sound economy. To this end, U.S. enterprise will be able to assist substantially by furnishing certain of the raw materials, machinery, equipment and technology which will be required from abroad.

Venezuela's slow growing agricultural sector is expected to profit from the country's economic boom. Thanks partly to the added revenue from petroleum, a major overhauling and revitalization of the agricultural sector has been made possible and is receiving top priority by the government.

In his inaugural speech, President Carlos Andres Perez stated that the new Venezuelan development model is based on the premise that agriculture is the starting point for other development. To meet this challenge the Venezuelan Government has stated its intention to provide fiscal and other incentives, credits, technical assistance, water works projects, fertilization programs, subsidies where necessary, and other benefits in the interests of stimulating and modernizing its agricultural sector.

The new Congress has already approved some $400 million for supplementary agricultural credits. U.S. industry capable of furnishing the necessary supplies, equipment and machinery needed to bolster the agricultural field will find a welcome and open door in Venezuela.

There will be opportunities abounding in the industrial sector as well. Venezuela has long been concerned with reducing dependence upon petroleum production by developing industry. There is little doubt that at this juncture the stage is set to accomplish this specific goal.

Upon taking office, the new Minister of the Treasury, Dr. Hector Hurtado, announced that a special fund should be established out of resources obtained from petroleum. This fund would be earmarked primarily for investments abroad, the returns of which could help provide financing of external costs for major industrial projects. It was recommended that this fund be established with no less than 200 billion bolivars ($4.6 billion), which would represent about half of the total petroleum revenue expected in 1974. Special legislation would first be required to establish this fund.

At the present time major industrial projects can be found in all stages of development: those already initiated, those being negotiated, and those currently under construction.

One such area of expansion is in the metallurgical industry, which has plans to quadruple present production of the state-owned steel complex, SIDOR; to build several iron briquetting plants, in addition to the one recently put into operation; to build additional steel mills; to expand the existing aluminum plant; and to construct additional aluminum producing plants. Other major projects in various stages of development involve expansion of the petrochemical industry, additional tourist facilities, increased construction activity, substantial increases in hydroelectric plants, building of a thermoelectric plant, an extensive road building program, initiation of a shipbuilding industry, improvements in port facilities and expansion of the food processing industry.

Export incentives

Venezuela's industrial program will also be served through the government's desire to stimulate and promote non-traditional exports. In an effort to accomplish this goal the Congress recently passed an Exports Incentives Law and established an export financing fund to provide fiscal incentives and credit facilities to exporters of non-traditional goods considered important to the nation's industrial development program.

The projects indicated above and others yet to be determined by the incoming government as well as the public sector, signal Venezuela's forward march toward a more industrialized, more developed nation, in which U.S. manufacturers, suppliers, financing and technology can play an important role.

There will be business opportunities galore ahead and, barring unforeseen circumstances, trade between U.S. and Venezuela should continue to grow and prosper in the immediate future.

Panama Finds New Prosperity Through Trade, Financial, Transport Functions

Panama has emerged as a leading U.S. market in Central America and the Caribbean, according to John W. Stahlman, Commercial Attache at the U.S. Embassy there.

Panama's high level of imports in relation to size arises from Panama's role as a regional financial, trade and business center, its strategic location on air and sea routes, the absence of exchange controls, moderate tariffs and few non-tariff barriers. This role is enhanced by the use of the U.S. dollar as a medium of exchange throughout the country.

Import demand is also generated by Panama's tourist and shopping attractions and by expenditures of Canal Zone residents and the Panama Canal Company. These factors, combined with economic and political stability and an energetic development program, have sustained economic growth at 7 to 8 percent a year over the past 12 years.

Prospects are good

U.S. exports to the Republic (including the Free Zone) increased about 25 percent in 1973 and could reach $330 million in 1974. Principal import groups are machinery and transport equipment, processed foods, medicines, textiles and electrical and electronic equipment. Prospects are good for increased U.S. sales in most product categories, as manufacturing in Panama is limited.

U.S. exporters will find sales opportunities more concentrated in three leading sectors — construction, public utilities (electric power generation and transmission, water and communications), and transportation— as well as in consumer goods. Prospects are good also in office equipment and supplies, processed foods and light industrial machinery and supplies.

The Panama City skyline has altered radically since 1969 when a construction boom began. Modern, attractive commercial and residential high-rise buildings now predominate. In the Panama City district alone, the issuance of construction permits more than doubled to $64 million a year by 1972. The boom accelerated in 1973 when the value of construction permits rose by 50 percent to $97 million.

This boom has overreached the country's capacity to produce basic building materials such as cement and reinforcing steel. It has given rise to imports of these and a wide range of other building materials, hardware, tools, plumbing and electrical wiring supplies. Air-conditioning (window and commercial units), home appliances, elevators, furnishings and interior decoration materials are in strong demand.

It is significant that Panama ranked sixth in world markets for U.S. air-conditioners of under 10,000 BTUs during most of 1973. It was among the 10 largest importers of units of all sizes during that period.

New housing legislation passed in October, which froze all rents at Dec. 31, 1972 levels and introduced other restrictions which favored tenants, evoked strong disapproval in many business circles and predictions of a slowdown in construction in 1974. However, instead of slowing in reaction to the new laws, building permit issuances were up sharply at the end of 1973. Whether or not such a slowdown eventually takes place, construction already in progress will keep the industry healthy during the greater part of 1974, and government low-cost housing programs may help to take up any slack in other building operations.

Rising construction costs have been met, in part, through mechanization and the substitution of lower cost and more efficient materials, such as plastic pipe and conduit and prestressed and prefabricated supports. High, horizontal-boom cranes, concrete trucks, excavators and concrete pumps are used increasingly.

Hotel projects on which construction is either under way or planned include a Holiday Inn, a Melia Corp. tourist resort and a tourist-convention center. New owners of the well-known El Panama Hotel announced plans for a major expansion and renovation early in 1974.

Panama's excellent beaches on two oceans across a narrow isthmus, scenic attractions and moderate climate are drawing rapidly increasing numbers of tourists. Reasonable prices on merchandise selected from worldwide sources, the use of English and the dollar and the availability of safe drinking water distinguish Panama favorably from most Latin American tourist spots.

A 38 percent increase to $315 million in public investment planned for 1974 supports forecasts of greater imports this year. Key budgeted projects and expenditures are (in millions of dollars): Panama City water system, 28.1; transportation (new Tocumen airport and Inter-American Highway, among others), 58.2; electricity, 51; housing, 71.9; agriculture, 60.4; industrial and commercial development, 11.2; telecommunications 9.3; and tourism, 2.6. Private investment, which has comprised 70 to 80 percent of total investment, has been growing annually at 12 to 15 percent in recent years.

Free zone trade flourishes

Scores of U.S. firms established in Panama's major sales, warehousing and processing center, the Colon Free Zone, share in its flourishing, $700 million merchandise trade. More than 800 foreign companies are represented by the Free Zone's 280 firms. Situated ideally at the Atlantic terminal of the Panama Canal, the Colon Free Zone offers new opportunities for expansion of U.S. exports in the hemisphere.

The Zone's effectiveness as an entrepot is borne out by its import-reexport trade volume and steady growth from 12 to 18 percent a year. Imports and reexports last year are estimated at $300 and $400 million, respectively. Firms in the Zone also act as agents for additional trade, reportedly valued at more than $200 million, which is

NEW PANAMA—*Commercial and residential high-rises illustrate Panama City's building boom. Construction permits valued at $97 million further accelerated activity in 1973.*

shipped direct from overseas supplier to markets in the region.

The Free Zone offers overseas suppliers more prompt and economical service to Latin American customers, effective control of regional sales, lower inventory requirements, lower labor costs and quick delivery on air or sea carriers transiting Panama. Experienced local sales personnel familiar with commercial operations in Latin America can relieve U.S. exporters of the burden of confusing details involved in selling to 20 countries in the region.

With restoration of U.S. export competitiveness in many lines in the past two years, American companies will want to consider Colon as an entre to new markets to the south.

Products now handled in the Zone include drugs and pharmaceuticals, cameras and film, electronics, books, laboratory and surgical instruments, tobacco products, office equipment, food products, cosmetics and toiletries, liquor and beverages, automotive and heavy equipment parts, cars, tires, and bicycles. Prospects for sales of packaging and materials handling equipment are good.

Tentative plans are being readied for expansion of the Colon Free Zone onto an adjacent parcel of Canal Zone land on which Congressional approval has been requested for ceding to Panama. A new freeway across the isthmus, a container port and a cargo airport adjacent to the Free Zone are under construction.

Excellent banking facilities and the absence of limitations on foreign exchange and capital transactions in Panama simplify trade and other business operations. In the past few years Panama has been transformed into a major international financial center. Some 55 banks, having 160 branches in the country and assets of over $2 billion, now operate there. Ten U.S. banks are among the 40 foreign banks in Panama. Most are licensed for both domestic and offshore operations. Thus, in terms of transportation, trade and finance, Panama has assumed a role in Latin America comparable to that of Singapore in East Asia.

Honduras Sets High Economic Goals, Plans To Step Up Equipment Imports

Topic number one in Honduras today—"the plan"—can translate into practical and important opportunities for sales of U.S. goods and services, in the view of Stephanie Mayfield, Commercial Attache at the U.S. Embassy in Tegucigalpa.

On Jan. 1 the government announced the outline of this ambitious National Development Plan, which if successfully implemented could have far-reaching effects on all levels of the economy and social structure. Areas of major concern in the plan are agrarian reform and rational exploitation of Honduras' rich forestry resources.

The agrarian policy includes not only a land redistribution program but also commitment to increase agricultural production and raise incomes of rural workers. With regard to forestry, the state has assumed control of all timber. It has created a National Corporation for Forestry Development, whose goal is to develop an efficient forest industry, assuring internal supply of needed wood products and improving Honduras' already encouraging international reserve position through increased forest product exports. The plan outline also gives attention to mining policy, industrial policy, tourism, fishing, energy, and transport.

What do these goals mean for U.S. trade? Agrarian reform means modernizing agricultural (including livestock) machinery and other equipment; in-country processing of forest and mining resources means new industry in which U.S. technology and merchandise can play an important role; bettering of Honduras' export position means improvement in the country's ability to finance imports.

The plan will probably spawn a series of laws during the course of 1974 relating to the various sectors of interest. The government hopes to clarify quickly some of the more controversial aspects of the plan (e.g., land distribution), as private sector support is essential for its implementation. U.S. businessmen interested in the potential of Honduras should keep abreast of the unfolding picture throughout the next several months.

Private investment in 1973 picked up somewhat over the virtual standstill of 1972, although some investment decisions have been postponed pending further clarification of the economic plan. Public investment for the remainder of this year should quicken as new projects stemming from the plan are undertaken. Financing of investment continues to show great reliance on foreign loans and Honduras continues to have an excellent credit standing with international lending agencies.

Important trade opportunities

Big-ticket items having good potential for U.S. suppliers over the next several months include the following:

► Electricity generating: ENEE (the National Electric Power Enterprise) has several major activities planned. Harza Engineering Co. has just completed the feasibility study for a 40 MW expansion of the Yojoa-Rio Lindo hydroelectric project; construction should run about $32 million, and bidding is expected during the latter part of 1974. In addition, ENEE will decide by the end of this year whether to undertake the El Naranjito hydroelectric project or the much costlier El Cajon project; if selected, El Naranjito will run about $65 million, with bidding to come in 1975 or 1976. The Swiss company Motor Columbus has prepared the feasibility studies for these projects. Harza will also be doing a survey of hydro resources located in eastern Honduras as a foundation for further hydro projects.

► Hospital construction and equipment: The IDB is financing construction this year of a $7.3 million university hospital in Tegucigalpa. Equipment purchases are budgeted at about $1.5 million. The Health Ministry is also contemplating construction beginning in 1975 of a $2.6 million hospital in San Pedro Sula and another sizable one in La Ceiba. The Social Security Institute is also considering a large installation in San Pedro Sula costing about $5.5 million. A detailed market survey of Honduran hospital/medical requirements may be obtained by writing to Honduras Country Specialist, Room 4039, U.S. Department of Commerce, Washington, D.C. 20230.

► Telecommunications: Teleconsult of Washington, D.C. has been chosen to develop plans for the modernization and administrative reorganization of Honduran telecommunications. This study will serve as the basis for negotiation of an IDB loan of about $14 million. The government has also privately invited bids from four firms for installation of two telephone plants in Tegucigalpa and one plant in San Pedro Sula, at a total cost of about $4 million.

► Water systems: The Central American Bank recently approved a loan to finance an $11 million water project for Tegucigalpa, including construction of a dam and reservoir and a water treatment plant with 15 million gallons daily capacity. Construction is scheduled to begin in June. The municipality of San Pedro Sula is also undertaking, with IDB assistance, expansion and improvement of its water system.

► Port Construction: The Port Authority is planning construction of a $4.5 million port in the Gulf of Fonseca, beginning in October. Other port activities are planned for Puerto Cortes and possibly Puerto Castilla.

► Road Construction: The U.S. firm Knoerle, Bender, Stone & Associates will prepare the final studies for construction of the La Ceiba-Elixir-Olanchito road. The project should cost about $12 million and construction may begin in 1975. Invitation to prequalified firms to bid on the Tegucigalpa-Talanga highway are expected within a few weeks. The IDB is considering financing the El Progreso-Yoro road at a cost of about $16 million, as well as two major urban roads for Tegucigalpa totaling about $11 million.

► Tourism: Development of the Tornasal region is in the planning stage and construction of infrastructure, hotels, etc. should begin early in 1975. Other hotel and motel construction is planned for San Pedro Sula, Tela, and Siguatepeque. The Bay Islands off Honduras' north coast are also attractive centers for tourism development.

Other areas which offer real potential for U.S. exports include agricultural machinery, heavy duty transportation and road maintenance equipment, agricultural research laboratories, construction and equipping of vocational training and secondary schools, extraction and processing of minerals located through UN geological studies in western Honduras, sugar mill equipment, food processing and packaging, textile machinery, tube mill and galvanizing machinery, hot rolling mill machinery, cast iron and cement pipe, water construction and equipping of a large oil processing plant, plus the wide range of traditional consumer goods which the dollar devaluation has made more competitive in Honduras. A long-planned project which the government may now be able to implement is creation of a multi-million dollar pulp and paper industry; U.S. technology and equipment could play an important role in this effort.

Fiji Trade Actions Heighten Interest In U.S. Offerings

Despite mounting international economic pressures and serious setbacks in a number of areas, Fiji's economy continues to grow at a moderately rapid rate. The U.S. Embassy in Suva adds that recent actions by the Fijian Government have resulted in a growing interest in and desire for a wide range of American goods.

Development Plan VI, the first post-independence five-year plan, has proceeded roughly on schedule. Serious declines in production of the country's three major commodities, gold, sugar and copra, have been mitigated by rising world prices for them. An unexpected boom in building and construction has provided impetus to the national economy.

Tourism, Fiji's single largest foreign exchange earner, has continued to grow rapidly, as in previous years. The number of visitors to the islands has expanded substantially and the tourist industry has become increasingly important to the national well-being. Hotel construction is to some extent responsible for the building boom. Reduced international cruise and flight arrivals due to the world energy shortage at times threatened the industry, but by early 1974 possible permanent reduction in air service to Fiji by many international airlines appeared to be more of a threat.

During the last two years Fiji has undergone its first serious bout with inflation. The newly created Prices and Incomes Board has had some success in stemming wage and price increases, but has been plagued by imported inflation and labor-management disputes. The energy shortage and increased fuel prices have added to the inflationary pressures, although the shortage has had only marginal ill effects on other segments of the economy.

Agriculture, particularly sugar and copra, remains the foundation of the economy. Production of both has been lagging in recent years, but this has been more than offset by rising world prices. Plans for agricultural diversification are proceeding slowly but could be important in years to come. Success and improvements in forestry, cattle raising, and commercial fishing are promising for the future.

U.S. market position

The U.S. market share in Fiji has traditionally been small, and in fact dropped to a new low of 3 percent in 1972. The first months of 1973 saw a slight revival to previous levels of around 4 percent, but dollar values remained low. On the other hand the United States ranks second only to the United Kingdom as a purchaser of Fijian products, resulting in a chronic trade imbalance in Fiji's favor.

The devaluations of the U.S. dollar helped somewhat in boosting the demand for American products, but probably far more significant will be changes occurring in 1974.

On Jan. 1, the two-tier Commonwealth Preference tariff system was eliminated in favor of a single line tariff. The elimination of this discriminatory system has made a wide range of goods from the United States more competitive. In February, Fiji broke its traditional sterling link and tied its currency instead to the U.S. dollar. While this move was aimed primarily at facilitating trade with other Pacific nations it will also simplify transactions with the United States.

Fijian businesses are actively seeking to import products as varied as nuts and bolts, clothing, infant foods, sporting goods, and heavy machinery. There is a prevalent feeling that American products are likely to be better and cheaper than the Australian goods which have traditionally dominated the market. A discouraging constraint to date has been a lack of interest on the part of many American firms in dealing with a market as relatively small and remote as Fiji. Moreover, despite the wishes of many Fijian buyers, their inquiries to American-based multinational corporations are often referred to Australian subsidiaries, resulting in further detriment to the U.S. balance of trade with Fiji.

The Government of Fiji hopes to diversify its sources of dependence and would welcome the lessening of Australia's influence over its economy by the arrival of more American products.

Indonesia Readies Warehouse System

Indonesia's first full-fledged bonded warehouse, P.T. Bonded Warehouses Indonesia, will soon be open for business in Pelabuhan Nusantara, adjacent to the main port area of Tanjung Priok, the port for Jakarta.

The facility has two modern warehouses with 4,000 square meters of space in each, an open storage area of 12,000 square meters, and a well-equipped office building. Several other buildings are planned to provide banking, transport, and other services. The warehouse facilities are well guarded, secure structures, surrounded by a double barbed wire fence.

U.S. exporters may wish to consider using the facility as a means of overcoming the time/distance problem in shipping to Indonesia. Indonesian importers would have to finance the 40 percent advance deposit required to open a letter of credit with general (DU) exchange for only the few days required to remove the goods from the bonded warehouse compared with the six weeks or more when importing directly from the United States. Delivery time also would be shortened considerably.

The new venture is a profit-oriented, semi-government operation in which the government holds 60 percent of the capital; the remaining 40 percent is expected to come from private sources.

P.T. Bonded Warehouses Indonesia will have two main divisions — a warehousing division to begin operations soon, and an export processing zone. The latter will be used for light manufacturing, labor intensive industries producing for export. P.T. Jado Warehousing, the only general entrepot licensed by the Indonesian Government and Indonesia's first step toward establishing the new bonded warehouse system, will be liquidated in the near future and integrated with P.T. Bonded Warehouses Indonesia. Additional bonded warehousing facilities will be established in Cilacap and Surabaja, Java, after P.T. Bonded Warehouses Indonesia becomes fully operational.

James J. Reilly, Commercial Officer at the American Embassy in Jakarta, has prepared a report on bonded warehousing in Indonesia which summarizes the regulations establishing these facilities and procedures to be followed by companies making use of them. He also describes private entrepots which investors planning to establish a manufacturing/assembly plant in Indonesia may set up under customs supervision. An additional report is available on free trade zones, free ports and similar customs privileged facilities in Indonesia. Both of these reports, DIB 7404039 in the Foreign Market Reports series, may be obtained from the Foreign Market Reports Unit, Room 1033, BIC, U.S. Department of Commerce, Washington, D.C. 20230.

Canada To Begin Developing Nation Duty Preferences

Canada will implement its generalized system of tariff preferences (GSP) for developing countries on July 1, in accord with legislation approved by Parliament in April 1973.

Under the Canadian legislation, imports of manufactured and semimanufactured products from 140 countries and territories will be subject either to the British Preferential Tariff or to the Most-Favored Nation (MFN) Tariff less one-third, whichever is lower. Certain industrial raw materials are also covered, but most of these are already duty-free on an MFN basis.

Specified tariff reductions are also included in the legislation for a selected list of agricultural products, even though the basic objective of the system is to promote the industrialization of developing countries. The list includes such products as cocoa derivatives, spices, rum, brandy, fruit juices, and vegetable oils.

Aside from the few industrial primary products which are excluded by the legislation, certain other products (mainly textile products and shoes) are to be excluded from the scheme at the outset. Most of these products are, or have been until recently, the subject of special trade arrangements with supplying countries, while for the remainder it is felt that a tariff reduction would create difficulties for Canadian producers. Their status will, however, be reviewed from time to time.

Details of the proposed rules of origin, designed to insure that only goods produced in the beneficiary countries will be allowed entry at the reduced duty rates, will be published shortly. Generally these rules will specify that at least 60 percent of the ex factory price of the goods be accounted for by value added in the beneficiary country, or by materials or components originating in that country or Canada. The regulations will also require a certificate of origin in a form agreed to internationally.

U.S. firms interested in obtaining copies of the authorizing legislation and beneficiary and excluded product lists should write to the Office of International Marketing, Room 4002, U.S. Department of Commerce, 14th & Constitution NW., Washington, D.C. 20230.

Latest U.S. Trade Data

United States Foreign Trade Annual 1967-1973 **has just been published by the Department of Commerce. This report, prepared by the International Trade Analysis Staff, International Economic Policy and Research, and the Foreign Trade Division, Bureau of the Census, provides annual data on U.S. foreign trade.**

Included are tables showing annual value of U.S. exports, imports, and merchandise balance; U.S. trade by economic classes; indexes of U.S. domestic exports and general imports by commodity categories; U.S. trade by principal commodities; U.S. trade by selected end-use categories; U.S. exports of domestic and foreign "special category" merchandise; U.S. exports, imports and merchandise balance, by geographic areas; domestic and foreign exports; general imports; U.S. share of exports and imports of selected countries; and U.S. share of imports of manufactures for selected countries.

United States Foreign Trade Annual 1967-1973**, OBR 74-06, is available for 30 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or through any Commerce Department District Office.**

Caribbean Community Joiners Bring Total Membership To Ten

The Caribbean Community and Caribbean Common Market expanded by six when Belize, Dominica, Grenada, Montserrat, St. Lucia and St. Vincent signed the organization's treaty on April 17. The addition of these six lesser developed areas, effective May 1, brings CARICOM membership to 10. St. Kitts/Nevis/Anguilla and Antigua did not sign the treaty, but may do so at some future date. The four original members of the organization, which came into being on Aug. 1, 1973, were Barbados, Guyana, Jamaica and Trinidad and Tobago. (see *Commerce Today*, Aug. 6, pp. 37-38.)

Among those present at the ceremony who expressed an interest in CARICOM membership were representatives of Haiti, Surinam and the Netherlands Antilles.

Italy Publishes New Law On Labeling Textile Goods

Italy has published a new law on the labeling of textile products, whether produced in Italy or imported. Regulations for the application of the law are to be published by January 1975. Products not complying with the law may be sold or imported until Jan. 1, 1976. U.S. firms interested in obtaining a copy of the law in Italian should write to the European Regional Affairs and Trade Regulations Staff, Office of International Marketing, Room 4002, U.S. Department of Commerce, Washington, D.C. 20230. ment of Commerce, 14th & Constitution NW., Washington, D.C. 20230.

Help For New Exporters

The Commerce Department has published a new *Basic Guide to Exporting* to help U.S. manufacturers get more business abroad.

"There is a simple reason why U.S. manufacturers should export—more profits," Marinus van Gessel, Deputy Assistant Secretary for International Commerce, says in a foreword. "But more than this, exporting provides a broader marketing base and results in greater growth. In addition, exporting results in a healthier economy and helps strengthen our international trade position."

Basic Guide to Exporting **examines all aspects of doing business abroad—market research, sales and distribution, pricing, collections, financing, shipping, documentation and product promotion. Commerce Department aids and services, including export reference publications, are listed in detail in the 52-page guide.**

Basic Guide to Exporting**, prepared by the Department's Bureau of International Commerce, is available at 70 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or through any Commerce Department District Office.**

Andean Common Market Has Petrochemical Draft Available

The Andean Common Market Secretariat met April 22 to negotiate several Sectoral Programs of Industrial Development, including automotive/agricultural tractors and the petrochemical industry.

A summary of the draft proposal on the petrochemical industry has recently been made available. The plan reflects the current energy crisis, its repercussions in the petrochemical sector, economy of scale considerations, existing industrialization plans and the interest of foreign firms in participating in major projects.

Copies of the summary of the draft proposal are available on a 10-day loan basis from the U.S. Department of Commerce, BIC-OIM/LAD, Room 4036, Washington, D.C. 20230.

Bangladesh Extends Deadline For Trademark Registrations

The Bangladesh Government has extended the deadline for applying for new registrations of Pakistan-registered trademarks to Sept. 15. All trademarks registered in Pakistan before March 26, 1971 were cancelled last year by Bangladesh Order 1973, and trademark owners wishing to apply for new registrations in Bangladesh must do so before this extended deadline. For further information see *Commerce Today*, April 30, 1973, page 48.

International Business Reports

Monetary Policy in Germany. Published by the Organization for Economic Cooperation and Development. 129 pp. $5.25.

This, the third report published by the OECD in its *Monetary Studies Series* (the first two dealt with monetary policy in Japan and Italy), analyzes the mechanisms and working of monetary policy in Germany.

After reviewing the general background for monetary policy, (main economic trends, fiscal policy and the financial structure), the report describes briefly the main instruments and operating targets of this policy. It analyzes monetary policy developments in their cyclical context, and seeks to assess the impact of policy changes on capital flows, monetary aggregates and interest rates. The remaining analytical part of the report deals with the impact of monetary policy on the major components of demand, while the concluding part of the work aims at an overall assessment of the use and effects of monetary policy in Germany.

Write: OECD Publications Center, Suite 1207, 1750 Penn. Ave. NW., Washington, D.C. 20006.

Port of Baltimore Directory. Eighth Edition. Prepared by the Maryland Port Administration. 103pp. Free.

Prepared as a service to Port of Baltimore customers and other maritime interests, this publication is designed to provide information on port services and personnel of business firms, public agencies and other organizations which make up the maritime community of Baltimore.

Write: Port Promotion Dept., Maryland Port Administration, 19 S. Charles St., Baltimore, Md. 21201.

Intervest Guide—Brazil and International Capital. Published by INTERVEST—Editôra e Distribuidora Ltda. 900 pp. $67 air mail, $60 surface.

This bilingual (English-Portuguese) volume provides detailed information on 4,200 firms foreign subsidiaries operating in Brazil and Brazilian firms with foreign capital participation. It includes a short description of the investor's worldwide activities; annual sales and profits; latest acquisitions; and amount of invested capital. In the case of Brazilian corporations there is balance sheet data and the composition of the Board of Directors. A unique feature of the Guide is the use of equity charts in illustrating financial links existing among investor groups internationally.

Write: INTERVEST—Editôra e Distribuidora Ltda., Praça Olavo Bilac, 28—90 and.—conj. 1911, Rio de Janeiro, GB, Brazil.

Calendar For World Traders

May 16—New York—Fifth Annual International Business Conference, Institute of International Business, Pace University.

May 16—Niagara Falls, N.Y.—18th annual Tri-City World Trade Conference (Buffalo, Rochester, Syracuse). Treadway Inn.

May 17—Odessa, Tex.—World Trade Seminar. Odessa College.

May 17—San Francisco—Banquet with presentation of International Achievement Award of 1974. World Trade Club.

May 18—Scottsdale, Ariz.—World Trade Week International Party. Casablanca Inn.

May 20—Washington, D.C.—Luncheon Address by Secretary of Commerce Frederick B. Dent, National Press Club.

May 21—Dallas—Annual World Trade Dinner. Sponsor: Dallas Chamber of Commerce. Speaker: John K. Tabor, Under Secretary of Commerce.

May 21 — Jacksonville, Fla. — World Trade Dinner of Jacksonville Area Chamber of Commerce, Sea Turtle Inn, Atlantic Beach.

May 21 — Los Angeles — Annual World Trade Week Conference of Export Managers Assn. of So. Calif. & California State Dept. of Commerce. Speaker: Tilton H. Dobbin, Assistant Sec'y of Commerce for Domestic and Int'l Business.

May 21—Oklahoma City—World Trade Seminar on Global Marketing Program.

May 21—Philadelphia—Exporting to Brazil Seminar, Sheraton Hotel. Sponsors: Foreign Traders Association of Philadelphia, Bureau of International Commerce. Luncheon speaker: Paul Griffith Garland.

May 21 — Portland, Ore. — Portland Air-Cargo Assn., Port of Portland, Portland Chamber of Commerce luncheon, New Airport Sheraton.

May 22 — Augusta, Ga. — Luncheon, Town Tavern. Speaker: Alan Polansky, Bureau of Resources and Trade Assistance, U.S. Dept. of Commerce.

May 22 — Boston — Propeller Club annual luncheon, Anthony's Pier Four. Program will include panel discussion on the Brazilian market.

May 22-24—Charleston, S.C.—South Carolina International Trade Conference, program on South Carolina—Gateway to World Commerce. Speakers: George J. Pantos, Deputy Under Secretary of Commerce, and South Carolina Governor John C. West.

May 22—Clark, N.J.—Seventh New Jersey World Trade Conference. Ramada Inn.

May 22—Columbus, Ga.—Muscogee Lions Club luncheon. Speaker: William Bruce Curry, Southeastern Regional Marketing Manager, U.S. Dept. of Commerce.

May 22—Des Moines, Ia.—Governor's Conference on Export Expansion. Speaker: Joel B. New, Office of Field Operations, U.S. Dept. of Commerce.

May 22—Hempstead, N.Y. — The World Trade Club of Long Island presents the Second Long Island International Trade Exposition and World Trade Day Luncheon, Holiday Inn. Sponsor: Long Island Association of Commerce & Industry. Speaker: George J. Pantos, Deputy Under Secretary of Commerce.

May 22—Honolulu—FCIB Round Table Conference. Hilton Hawaiian Village.

May 22—Miami—Governor's Conference on International Trade. Sheraton-Four Ambassadors Hotel.

May 22—Mobile—World Trade Day Reception and Dinner. Municipal Auditorium.

May 22—Owensboro, Ky.—World Trade Week Conference of Owensboro-Daviess County Chamber of Commerce, Owensboro Motor Inn.

May 22 — Sacramento, Calif. — California Dept. of Commerce and California Chamber of Commerce Luncheon. Speaker: Tilton H. Dobbin.

May 22—Savannah, Ga.—Savannah Area Chamber of Commerce Dinner. Speaker: Alan Polansky. Oglethorpe Club.

May 22—St. Louis—World Trade Week Civic Luncheon. Speaker: Assistant Secretary of Commerce for Economic Affairs Sidney L. Jones. Rodeway Inn.

May 23—Boston—World Trade Day in New England sponsored by International Center of New England. Anthony's Pier Four.

May 23—Bowling Green, Ky.—World Trade Week luncheon. College Inn.

May 23—Bridgeport, Conn.—World Trade Week Dinner of Conn. District Export Council. Holiday Inn.

May 23—Cleveland—29th annual Cleveland World Trade Conference, Cleveland Plaza Hotel. Program will include panel discussion on the Brazilian market.

May 23—Denver—World Trade Week East-West Conference. Regency Inn.

May 23—Kansas City—International Trade Club World Trade Week Banquet. Glenwood Manor Motel.

May 23 — Milwaukee — Tenth Annual Wisconsin International Trade Conference. Marc Plaza.

May 23 — Minneapolis — Upper Midwest World Trade Conference. Speaker: Assistant Secretary of Commerce Sidney L. Jones.

May 23 — New York — World Trade Day Luncheon. Speaker: Donald M. Kendall, PepsiCo chairman. Hotel Roosevelt.

May 24 — Dayton, O. — Ninth Annual Ohio Valley International Trade Conference. Convention Center.

May 24—Honolulu—International Seminar on New Financing for Hawaii's Trade. Ilikai Hotel.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Overseas

Posidonia Fair—Business Automation and Materials Handling Equipment for Shipping Industry: Ship Building and Repairing Material. Catalog Exhibit. Athens. June 3-9. Shipping is one of Greece's major industries and since 1967 has been undergoing continued expansion. Today, tonnage of the Greek merchant fleet is approximately 40 million tons and the number of vessels over 4,300. Funding, insurance and tax incentives have been granted local industry to encourage establishment of offices and facilities along with expansion. This Catalog Show will be held as part of Posidonia's International Shipping Exhibition. For further information call Robert E. Peterson, 202-967-3973.

Biomedical Equipment Exhibition/Symposium. Milan Trade Center. June 4-8. The Italian biomedical equipment market is growing 14 percent a year and the U.S. share is increasing. Opportunities are especially good for U.S. manufacturers of implantable pacemakers, I.P.P.B. respirators, pediatric respirators, artificial kidneys, gamma cameras, electronic blood cell counters, automated sample analyzers, echoencephalographs, surgical pacemakers, spectrophotometers and other diagnostic equipment. Contact nearest District Office or call Sam Spaulding, 202-967-4508.

Aviation Ground Support Equipment & Aircraft Services Exhibition. Singapore Trade Center. June 17-21. The timing is appropriate for expanded U.S. initiatives to sell aviation support equipment in this market. At the present time the entire Singapore marketing area is experiencing an economic boom. The region is industrializing and enjoying high rates of foreign and domestic investment. Tourism is on the increase, and demand for air travel and air freight is growing faster than in any other part of the world. For further information call Lee Barnes, 202-967-5545.

Food Processing Machinery and Equipment. Buenos Aires Trade Center. June 24-28. The Argentine market continues to need items incorporating the latest processing techniques, but not necessarily high volume equipment. Special interest items include processing machinery and equipment for the fishing, meat, wine and fruit and vegetable industries. Call Vicky Eicher, 202-967-4463.

Printing and Graphic Arts Equipment Catalog Exhibition. Hong Kong, Taiwan, Thailand. July 9-25. Local printing and graphic arts industries in these nations are expanding rapidly, causing many firms to upgrade the quality of their operations to remain competitive. Recent currency revaluations and the recognized high quality of U.S. machinery and materials contribute to making this area of the world, and especially these markets, most favorable for U.S. suppliers. For further information call Robert E. Peterson, 202-967-3973.

Automotive Parts, Tokyo Trade Center. July 22-26. The Japanese auto industry is actively looking for U.S. sources of auto parts and accessories to be incorporated in their cars and trucks. Rapidly rising prices and uncertain supplies of Japanese-made components may result in many large volume, long-term contracts between American original equipment manufacturers and the 11 Japanese automobile manufacturers who make up the second largest auto industry in the world. Contact Randall Miller, 202-967-2709.

Shoemaking and Leather Goods Machinery and Equipment. Buenos Aires Trade Center. July 22-26. The Argentine shoe manufacturing industry is highly atomized and under-capitalized and in need of modernizing its basic equipment. If the current trend of increasing foreign demand for Argentine shoes continues this year, the Argentine shoe industry will be forced to expand and upgrade its production facilities. Investment over the next three years for new equipment could range from $6 million to $10 million, most of which will have to be imported. Local equipment manufacturers cannot supply more than a fraction of the potential demand for new machinery. Display equipment for this exhibition must be 100 percent U.S. origin. For further information call Vicky Eicher, 202-967-4463.

Analytical and Laboratory Instruments Catalog Exhibitions. Malaysia, Philippines, Singapore. July 24-Aug. 7. Implementation of plans for product improvement and reduction of labor costs, in the rapidly expanding industrial sectors of these nations, has created a growing market for analytical laboratory instrumentation. Call Robert E. Peterson, 202-967-3973.

Hotel and Restaurant Catering Equipment Catalog Exhibition. Lesotho and Swaziland. August. Lesotho and Swaziland are two of the newest, fastest-growing vacation areas in Africa, and attract thousands of tourists year-round. This introductory trade promotional activity is geared to help meet the growing demand of this area's burgeoning tourist industry. Call Robert E. Peterson, 202-967-3973.

Printing and Graphic Arts Equipment. Mexico City Trade Center. Aug. 5-9. The Mexican market for printing and graphic arts equipment grew 10 percent in 1972. The U.S. share of the market was 57 percent and the recent monetary realignment increases the attractiveness of high quality, U.S.-manufactured goods. The outlook is for continued growth and increased imports during the next five years. Call Porter Clary, 202-967-5040.

Computers and Information Processing Catalog Show. Stockholm. Aug. 5-10. The International Federation of Information Processing Congress and Exhibition, held in Stockholm, will provide U.S. firms with an ideal marketing opportunity to gain wide exposure in the Northern European area. The Swedish market for computers and related equipment is strong. Sales activity there is expected to exceed $245 million by 1977. Some 90 percent of this will probably be imports. Call Robert E. Peterson, 202-967-3973.

U.S. Textiles Exhibition. Sydney Trade Center, Aug. 6-8 and Melbourne, Aug. 13-15. This tandem exhibition will provide U.S. manufacturers a unique opportunity to either expand sales or enter the important Australian textile market, which is continuing to expand at a rapid rate. Textile imports have increased from $260 million in 1968 to over $461 million in 1973. Due mainly to extreme worldwide material shortages, traditional Australian buying patterns have undergone considerable change. This factor, accompanied by both the Australian and U.S. currency adjustments and unilateral Australian tariff reductions, has created an overwhelming preference for U.S. textiles. Contact John Klingelhut, 202-967-3646.

Electronic Data Processing Equipment, Related Business Equipment and Systems. Singapore Regional Trade Center. Aug. 19-23. Singapore, the commercial/financial center of Southeast Asia in addition to its growing entrepot economy, is emphasizing increased industrialization. Because of this, Singapore's demand for high-speed data handling and the most modern business methods is burgeoning almost as fast as its economy, which boasts 10 percent-plus growth rates for the last several years. This demand prompted the U.S. Regional Trade Center in Singapore to mount a major exhibition featuring this equipment. Participation is limited. Contact your nearest Commerce District Office or Peter M. Dunlap, Washington, D.C. Coordinator, 202-967-5545.

Plovdiv Fair—U.S. Exhibition of Modern American Agriculture Technology. Plovdiv, Bulgaria. Sept. 3-10. The U.S. pavilion will contain agricultural exhibits covering tractors, harvesters, agricultural chemicals, irrigation equipment, milking machines, fruit and vegetable pickers, tobacco processing equipment, planters, etc. The pavilion will house both indoor and outdoor display space. Plan is for 20-25 exhibitors. Contact Paul M. Terlizzi, 202-967-5163.

Polymery-74 — Foreign Exhibition for the Plastics Industry. Moscow. Sept. 3-16. The Soviet Five-Year Plan targets investments for the petrochemical industry at 4.2 billion rubles in 1974 and 4.7 billion in 1975. Soviet-built equipment for the plastics industry has proven inadequate in terms of variety, quantity, and technology. Soviet imports of equipment, processes, and technology for the petrochemical industry jumped 10 percent in 1971 and 56 percent in 1972. Call Jim Robb, 202-967-4810.

Educational Communications Systems. Stockholm Trade Center. Sept. 9-13. Market research surveys indicate great interest by the Scandinavians in U.S. technology in education communication systems. An extensive promotion campaign will be conducted in

the four Scandinavian countries to insure attendance of key decision makers, buyers and training professionals. Call William Beiring, 202-967-3276.

Advanced Fluid Power Equipment. Tokyo Trade Center. Sept. 9-14. The fluid power equipment market in Japan recorded an annual average 30 percent rate of growth through the decade of the 1960s. A high level of demand for advanced fluid power equipment including water-cooled and oil-less compressors, quick-connect couplings, level and pressure gauges and intensifiers is expected to continue through 1977. Sales of U.S.-manufactured air and hydraulic motors, servosystems and servovalves, actuators and hydrostatic transmissions as well as fluid power equipment for the aerospace industry are also expected to increase dramatically in the coming 24 months. Contact Ray Alvarez, 202-967-2461.

Pollution Control Systems and Equipment Catalog Exhibition. Paris. Sept. 10-14. The French Government, becoming increasingly aware of the pollution control problem, has established regulations which have generated a growing market for pollution control systems and equipment. Imports in this field are expected to exceed $85 million for the 1974-1975 period. This catalog exhibition will be held as part of a major French exhibition — Environmental Expo '74 — Man, Air and Water—and should prove beneficial to U.S. companies which have appropriate equipment and systems for the pollution control and solid waste disposal requirements. Call Robert E. Peterson, 202-967-3973.

Business Machines and Office Equipment — BUREAU '74 — Brussels. Sept. 10-18. An exceptional marketing opportunity is being offered to U.S. producers by this 20th biennial international show. During the past five years, there has been a rapid increase in the number of offices and modern retail facilities in Belgium, as Brussels acquires increasing importance as the developing capital of Europe. Economic growth trends in Belgium are expected to continue to rise, ensuring a favorable market. Call Bobette P. Heien, 202-967-3848.

16th Brno International Engineering Fair. Brno, Czechoslovakia. Sept. 11-19. The U.S. Exhibition theme will be "Electronic Data Processing" and will feature computers, peripherals, calculators, office machines, and electronic data processing equipment including software. Market research estimates that Western sales potential for EDP equipment over the next three years (1974-1976) is $42-52 million, with approximately $14-17 million in 1975. The U.S. exhibition will be limited to 20 exhibitors. Call Jim Bushery, 202-967-5163.

Industrial and Commercial Security Equipment. Paris Trade Center. Sept. 16-20. American manufacturers and suppliers of security equipment for fire protection and extinction, burglary and pilferage detection and prevention, access controls and communications equipment have growing opportunities to sell to French buyers. Rising theft and crime, special fire protection legislation and generous discounts on insurance premiums for adequately protected premises are compelling companies to consider protective security devices. Firms taking part will benefit from a market promotion campaign to attract buyers, agents and distributors. Contact Charles M. Whitley, 202-967-5381.

Telecommunications and Data Transmission Equipment and Systems Technical Sales Seminar to Romania, Yugoslavia and Poland. Sept. 17-Oct. 3. Plans have been formulated for a broadened and integrated telecommunications network in Eastern Europe and the Soviet Union. Although the bulk of the equipment will be produced within the Council for Mutual Economic Assistance, there will be good opportunities for sales of U.S. hardware in particular areas. This technical sales seminar will emphasize capabilities in the higher-technology areas of telecommunications and data transmission, including satellite communications, microwave transmission, data terminals and communications, mobile radio, closed circuit and cable television systems. Call Wyn Coates, 202-967-5285.

Business Automation Equipment (JEEP). Milan Trade Center. Sept. 20-25. In 1973 the demand for business automation equipment in Italy was $480 million and by 1976 is expected to exceed $900 million. Emphasized will be accounting and bookkeeping systems; desk-top and mini-computers; high-speed copiers; microfilm equipment including retrieval, storage and filing; computer cash registers and terminals; punched tape and magnetic tape billing and invoicing machines; microfiche; computer terminals with business applications. Call Robert Welsh, 213-824-7581.

Electronics Industry Production and Test Equipment and Electronic Components Equipment. Regional Trade Center, Singapore. Sept. 23-27. Market research in Singapore, Malaysia, Indonesia, and Thailand indicates highest potential for sustained growth in exports offering favorable opportunities for U.S. manufacturers of such equipment and components. Participation is limited. Contact Peter M. Dunlap, 202-967-5545.

Maritime-USA—Exhibition and Technical Seminar featuring Shipboard, Port Cargo Handling and Harbor Development Equipment, Systems and Engineering Services. Taipei Trade Center. Sept. 23-27. With the worldwide demand for shipping at an all-time high, Taiwan has undertaken a major expansion of its shipbuilding industry. This and rapidly growing trade volume have resulted in overtaxed port facilities and a critical need for major improvements and expansion of present harbor and dockside operations. Tonnage passing through Taiwan's ports increased 18 percent a year from 1968 through 1971, jumped an additional 25 percent in 1972, and rose a phenomenal 40 percent during the first half of 1973. The ports of Keelung and Kaohsiung alone accounted for 37.5 million metric tons of cargo during the first nine months of 1973, which exceeded their 1972 year's total of 36 million M/T. Products to be exhibited include anti-corrosion finishes and applications equipment; anti-pollution equipment; cargo documentation and control systems and specialized equipment; cargo handling gear; communications, instrumentation, navigational and safety equipment; engine room, galley, crew quarters and deck machinery and equipment; commercial refrigeration systems. In addition, qualified naval architects, consultants, engineers and harbor development contractors are invited to participate. Call Dave Horridge, 202-967-2798 or 4227.

Biomedical Equipment. Frankfurt and Paris Trade Centers. Sept. 30-Oct. 3, and Oct. 8-11, respectively. This tandem scheduling gives U.S. firms the opportunity to participate in either or both events. The biomedical market in France is growing rapidly. The U.S. supplies about one-sixth of French imports and one-third of Germany's in this field. Opportunities are especially good for U.S. manufacturers of cardiac output analyzers/computers, implantable pacemakers, electro- and phono-cardiographs, positive pressure breathing apparatus, nebulizers, echoencephalographs, cystic fibrosis analyzers, monitors, gamma scintillation cameras, oxygen flowmeters, chromatographs, automated blood cell counters, automic absorption/emission spectrophotometers, spectrofluorometers, and a wide variety of other such equipment. Call Bob Wallace, 202-967-3748.

Offshore International. Olympia, London. Oct. 7-11. This exhibition, being held in cooperation with Industrial Trade Fairs, Ltd., is designed to bring U.S. goods and services to the emerging European offshore market for oil and natural gas exploration and production, but especially to ongoing activities in the North Sea and adjacent maritime areas West and South of Britain and Ireland. The projected value of North Sea capital investment in 1973 was estimated at $480 million. The projected value in the latter 1970's should total $1.4 billion with the U.K. shelf area share at $720 million. Contact C. Edward Walls, 202-967-4256.

Pharmaceutical and Cosmetic Manufacturing Equipment and Materials Exhibition. Milan Trade Center. Oct. 8-12. The pharmaceutical and cosmetic industries represent a major sector of the Italian economy as indicated by production figures that totaled over $2 billion in 1973. These industries are projected to expand at an average annual rate of 8.8 percent. U.S. manufacturers of production and packaging equipment and raw materials and substances will find a ready market for their products in Italy. This exhibition has been timed to coincide with the International Chemical Engineering Exhibition (MAC '74) on the adjacent Milan Fairgrounds. Contact Beryl D. Cohen, 202-967-4508 or William S. Gaines, 202-967-3822.

Bucharest International Fair. Bucharest, Romania. Oct. 13-22. The U.S. exhibition theme, Industrial Process Instrumentation and Control, will feature equipment from simple temperature indication to the sophistication of on-line digital and analog computing and will cover such process industries as chemical, pulp and paper, petrochemical, plastics, ceramics, textiles, mining, rubber, etc. In addition, the exhibition will include remote control valves, pumps, and proportioning equipment as used individually or in a system. Call Dick Bell, 202-967-5163.

Plastics Production Equipment (JEEP). Taipei Trade Center. Oct. 14-18. Manufactured plastic products rank third among the foreign exchange earnings of Taiwan. To insure the future of this vital industry, major projects are under way to make the country almost self-sufficient in petrochemicals and plastics. Industry is striving to upgrade standards of product design, quality and production. As a result, equipment requirements are becoming more sophisticated. Including instruments and controls, the market is estimated at about $6 million, up $1 million over 1972 and $3 million over 1971. U.S. machinery exports alone shot up 44 percent to over $1 million last year. This sharp rise can be attributed to several factors: improved price competitiveness, a government policy of encouraging U.S. imports, and a keen interest in U.S. technology and its benefits. This event, limited to new to export/new to market firms only, combines an exhibition with a technical seminar. Contact Donald L. Schilke at the U.S. Department of Commerce District Office, 1406 Mid Continental Plaza Bldg., 55 E. Monroe St., Chicago, Ill. 60603, or telephone 312-353-5096.

U.S. Agricultural Equipment Trade Mission to Ethiopia, Sudan, and Kenya. Oct. 14-25. In light of the priority emphasis of the governments of Ethiopia, Kenya and Sudan on

Sales opportunities in 9 U.S. commercial exhibitions, 8 catalog exhibitions, 28 shows at U.S. Trade Centers, 1 trade mission and 2 technical sales seminars are being offered to present and potential U.S. exporters between now and January 1975.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Beirut, Buenos Aires, Frankfurt, London, Mexico City, Milan, Paris, Seoul, Singapore, Stockholm, Sydney, Taipei, Tehran, and Tokyo. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Director, Office of International Marketing, Room 4015, U.S. Department of Commerce, Washington, D.C. 20230.*

U.S. specialized trade missions and technical seminars are comprised of groups of U.S. businessmen organized by the U.S. Department of Commerce to travel abroad to promote the export of U.S. goods and services produced by their particular industry. **Write:** *Trade Missions, Room 4219, U.S. Department of Commerce, Washington, D.C. 20230.*

agricultural development and the large existing U.S. share of the market in these countries, the U.S. Department of Commerce is sponsoring this mission to Addis Ababa, Nairobi and Khartoum. The following equipment has been identified as high priority items for these markets: cultivating equipment; harvesting machinery; oilseed processing machinery; coffee processing and related equipment; non-road tractors; poultry, livestock and dairy equipment; and irrigation pumps. Contact Wanda Lee Ale, 202-967-3119.

Refrigeration Equipment and Machinery for the Food Industry. Tokyo Trade Center. Oct. 14-19. The Japanese market for cold chain equipment, including environmental control instrumentation and equipment, food products industry and packaging equipment, and materials handling equipment, is growing at an average annual rate of 35 percent, from $974 million in 1971 to over $2 billion by 1974. Japan purchased from overseas sources in 1971 40 percent (i.e., $37 million) of total consumption of refrigeration equipment and machinery; the U.S. share of these imports was 50 percent. In 1974, Japan will import approximately $80 million of this equipment, of which the United States will supply $42 million. Call John Wolf, 202-967-4056.

Automechanika '74 — International Exhibition for Motor, Workshop and Service Station Equipment. Frankfurt. Oct. 18-22. The U.S. pavilion will offer American manufacturers of automotive maintenance and service equipment and parts and accessories an excellent opportunity to exhibit and sell their products at the largest event of its type in Europe. Call Bill Dawson, 202-967-4941.

Wood and Wood Related Industries Catalog Exhibit. Oporto, Portugal. Oct. 18-27. This exhibit, to be held in conjunction with the 1st Exposition of Wood and Wood Related Industries, Furniture, Paper and Forestry Products, will encompass all aspects of the wood industry including equipment for logging, sawmills, and finishing operations plus wood-derived products such as building materials, furniture and paper (including equipment to produce these items). Portugal's imports in all of these areas totaled $49.4 million in 1972 and are increasing steadily. Call Robert E. Peterson, 202-967-3973.

Machine Tools Exhibition. Mexico City Trade Center. Oct. 21-25. Imports of metalworking equipment from the United States are expected to increase substantially. The overall market potential for metalworking machine tools and metal finishing equipment for metal parts has been forecast to reach $102 million, a compound rate of 8 percent annually, by 1978, despite growing local production. Call Mary Wiening, 202-967-5037.

Computers and EDP Equipment Catalog Exhibit. Zagreb, Yugoslavia. Oct. 21-26. This exhibit will be part of INTERBIRO, the 5th International Exhibition of Data Processing Systems and Office Equipment. The Yugoslav market for computers and EDP equipment is growing rapidly and is expected to reach $45.6 million by 1977. Minicomputers and peripheral equipment are of special interest. Call Robert E. Peterson, 202-967-3973.

Projekt 2000—International Trade Fair on Pollution Control. Graz, Austria. Oct. 23-26. American manufacturers and suppliers of equipment for the control of air and water pollution, noise abatement, sewage treatment, solid waste disposal, and radiation control have a special opportunity to gain increased sales throughout Europe by exhibiting in the U.S. pavilion. Trade visitors from the governmental buying units of Eastern Europe concerned with environmental protection will be in heavy attendance. Call David Katz, 202-967-3748.

Advanced Educational and Training Aids (JEEP). Tokyo Trade Center. Oct. 24-26. With a population of 109 million people and a school attendance of over 95 percent, improved techniques and equipment for Japan's educational systems are constantly being sought. In addition, Japanese businesses actively try to provide training opportunities for their employees. There is, therefore, an active market for industrial training equipment and new learning techniques. This exhibition is limited to new-to-market U.S. participants and is designed to put them in contact with potential representatives who can handle sales on a continuing basis. Call John Wolf, 202-967-4056.

Building Products and Construction Equipment. Stockholm and Paris Trade Centers. Oct. 28-31 and Nov. 5-8, respectively. Commerce is offering manufacturers and suppliers of building products and construction equipment a splendid opportunity to gain increased sales in France and Scandinavia by exhibiting at one or both of these shows. France, which has the fastest growing economy in Western Europe, and the Scandinavian countries of Sweden, Norway, Denmark, and Finland, offer bright prospects for sale of U.S. products in the building field. Call Andre Williams, 202-967-5373.

Food Processing & Packaging Equipment Technical Sales Seminar. Thailand, Indonesia, Malaysia. Nov. 9-26. Improving consumer tastes, expanding population and government backing make the outlook particularly bright for U.S. exports of food processing and packaging machinery to these three markets in the next few years. Equipment imports for improved processing of commodity exports and for domestic foodstuff consumption make efforts in these countries a must for 1974. Call Wyn Coates, 202-967-5286.

Pharmaceutical Production Equipment Exhibition. Mexico City Trade Center. Nov. 11-15. Strongly expanding Mexican Government medical care programs as well as stricter controls in production and quality required from local laboratories offer good opportunities to U.S. suppliers of machinery, equipment and instrumentation used in the pharmaceutical industry. The U.S. share of total imports is about 70 percent and a majority of local needs must be imported. Call Mary Wiening, 202-967-5037.

Industrial Process Controls and Instrumentation Equipment. Milan Trade Center. Nov. 13-19. High sales potential exists in Italy for process measuring and control instruments and systems for measuring, recording and controlling physical and chemical properties, such as temperature, pressure, vacuum fluid flow, liquid level, mechanical motion, humidity, density, combustion and chemical analysis. Control and regulator valves, servo mechanisms, process control computers and related products also rank high. This exhibition will run concurrently with BIAS, the large international automation and instrumentation show, on adjacent fair grounds. Call Sam Spaulding, 202-967-4508.

Audio-Visual Educational Aids Exhibition. Tehran Trade Center. Nov. 16-20. Market research points to a booming market in Iran for audio-visual educational materials during the next several years. The Iranian Fifth Development Plan (1973-77) calls for more than $6 billion to be spent on education, particularly teacher training, technical and vocational training, and primary and adult education. The plan period will see 391,000 new students entering kindergarten throughout the country. Call Don Ryan, 202-967-5506.

Electronica 74. Munich. Nov. 21-27. Commerce will have an American trade section at this major event, the world's largest trade fair for the electronics industry, covering electronic components, test and measuring instruments, and production equipment for the electronics industry. Phenomenal results by U.S. participants at the last Electronica plus recent market information indicates outstanding success for exhibitors in the American section of this show. Call nearest Commerce District Office.

Minicomputers and Peripherals. Paris Trade Center and Frankfurt Trade Center. Nov. 25-28 and Dec. 3-6, respectively. Commerce is sponsoring these two exhibitions to facilitate participation in both; however, an exhibitor may elect to participate in either one. The outlook for sales of minicomputers in both France and Germany during the 1973-77 period is extremely favorable. Participants in previous exhibitions of this type have reported excellent results and market research indicates the potential to exceed even these successes. Call Don Schmadel, 202-967-2177.

Sportswear and Casual Clothing (JEEP). Milan Trade Center. Dec. 4-6. The sales opportunities for U.S. manufacturers of men's and women's sportswear and casual clothing are soaring as the trend toward more informal dress accelerates. Clothing imports increased 49 percent in 1973 and future possibilities appear excellent in light of the current competitive position of American merchandise. Contact Mara Yachnin, 202-967-2434.

Pollution Control Equipment. Stockholm Trade Center. Dec. 9-13. U.S. manufacturers and suppliers of air and water pollution control equipment, solid waste treatment equipment and noise abatement equipment have an outstanding opportunity to introduce new products and improve their share in the expanding Scandinavian market by exhibiting at this show. Recent market research

conducted in Denmark, Finland, Norway and Sweden points to continued high demand, especially for sophisticated detection and control equipment. Firms exhibiting will be exposed to a highly select group of potential customers. Call William Beiring, 202-967-3276.

Modern Merchandising. Frankfurt Trade Center. Jan. 14-17. The U.S. is one of Germany's leading suppliers of point-of-sales equipment, materials handling equipment, security equipment, background equipment and other equipment for the wholesale and retail trade. Purchases of merchandising equipment are expected to grow rapidly during the next three years, with continued imports from the U.S. Call William Dawson, 202-967-5381.

Industrial Growth Projections For India Cited In New Report

A 13-page report from the U.S. Embassy in New Delhi analyzing the Indian Government's projections for growth in that country's industrial and mining sector is now available. The report comments on public and private sector growth and on licensing, pricing, and foreign investment policy guidelines. Tables show, for various commodity groups, the estimated production during India's fiscal year (IFY) 1973-74 and the production target for IFY 1978-79. Write: Foreign Market Reports Unit, room 1033, U.S. Department of Commerce, Washington, D.C. 20230, referring to DIB 74-05-041. P-74247. OPIC

U.S. Agricultural Technology Wanted For Yugoslav Plans

Agrokombinat 13 Juli, leading agricultural producer in the Yugoslav Republic of Montenegro, is planning a 25-year expansion program which will require investment estimated at $130 million. The Kombinat, employing 1,500 people and producing all types of fruits and vegetables, wine, dairy products, meat and fish, is seeking U.S. technology and joint ventures.

A feasibility study, prepared by experts from the Organization for Economic Operation and Development, calls for cultivation of an additional 20,000 hectares (1 hectare = about 2½ acres) of land in the Titograd basin. The land is divided into three zones. Priority has been assigned to developing 4,000 hectares in Zone 1, Sjemolsko Polje, by 1980. The program includes construction of irrigation works and preparation of this rocky terrain for cultivation. Zone 2 is improvement of 4,000 hectares already being cultivated by the Kombinat. Zone 3, Lake Skadar, is the most ambitious phase of the program and calls for dredging and flood control works to create 12,000 hectares of agricultural land from shallow Lake Skadar. The first segment of Zone 2 will bring under cultivation 1,700 hectares as a test of the problems and possibilities of the program.

In addition, the feasibility study envisages an employee training program and construction of a slaughterhouse, refrigeration plant, and dairy plant.

Agrokombinat 13 Juli is seeking direct contacts with U.S. firms, to discuss production of flowers, almonds, grapes, walnuts, fish or other products for sale in Yugoslavia, the United States, or third countries. Write: Nikola Petrovic, Director, Agroeconomic Institute, Agrokombinat 13 Juli, Titograd, SFR Montenegro, Yugoslavia. Telex: 61-165. P-74251. OPIC.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Foreign Investment Services Staff, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce Office.

OPIC indicates that the country involved is eligible for investment insurance coverage written by the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

2065, 3535, 3641—KUWAIT—Seeks collaboration with U.S. firms for following projects: **Light bulb factory** manufacturing 3 million fluorescent and incandescent units per year; **candy and gum factory**; and plant to make **components for elevators** to be sold to Egypt for assembly there. Prominent Kuwaiti businessmen involved in these projects can supply much of the capital and have access to cheap energy. Talal Abu Ghazaleh, Talal Abu Ghazaleh & Co., P. O. Box (Safat) 4628, Kuwait. P-74243.

2646, 2649, 3961—FRANCE—Manufacturer and wholesaler of paper mache and textile fabric articles for festive decorations, such as face masks, halloween lanterns, garlands, caps, wigs, seeks U.S. licensing rights for manufacture and sale in Europe of U.S. **specialities and novelties** in this field. Firm has extensive workshops and storage facilities. Contact: Francois Daniel, France-Cotillons, 55 rue de Turckheim, 68025 Colmar, France. WTDR. P-74252.

2819, 2873—FRANCE—Seeks licenses for know-how to produce **fertilizers and inorganic chemicals.** Firm established 1971, is capitalized at $1.7 million, has annual sales of $5 million. Interested organization is engineering and industrial research branch of Entreprise Minere Chimique, subsidiary of Societe Azote et Produits Chimiques. Contact Jacques Burko, Commercial Manager, PEC Engineering, 62 Rue Jeanne d'Arc, 75646 Paris Cedex 13, France. P-74249.

2841—BOLIVIA—Seeks licenses to produce **liquid detergent** from either raw materials or from concentrates to wash sheep's raw wool, knitted wool pieces, cotton and rayon fabrics. Yearly production will be 79,000 pounds of detergent. Correspondence should be in Spanish. Efrain Mustafa, Apretex, Casilla 6354, La Paz, Bolivia. WTDR. P-74246. OPIC.

2841, 2843—TRINIDAD & TOBAGO—Seeks contact with U.S. firms interested in a joint venture and/or license agreement to manufacture **drilling detergents, used for cleaning oilfield pipelines for secondary recovery processes**; also, **industrial cleaning compounds.** Estimate sales potential of $50,000 per year for each product group in Caribbean Community. Firm is large cooperative enterprise producing edible oils, lard, margarine, soaps and detergents. F. H. M. Agostini, Managing Director, Coconut Growers' Association Ltd., Eastern Main Road, Laventille, Trinidad, W.I. P-74238. OPIC.

3079—JAPAN—Seeks licenses to manufacture and sell **petrochemical products** such as carpet underlay, furniture underpadding, automotive floor underpads, insulating materials and oil containment booms. Firm is leading petroleum refining and distributing company with daily refinery capacity of 192,000 barrels. It manufactures foamed low-density polyethylene net for fruit packaging, and wishes to expand into listed items. Firm employs 2,234 and has ample space and work force for expansion. K. Ogasawara, Head of Development Dept., Showa Oil Co., Ltd., 2-7-3 Marunouchi, Chiyoda-ku, Tokyo 100, Japan. P-74245.

3317, 3325—INDIA—Seeks technical know-how to manufacture **reformer tubes** used mainly for petrochemical and naptha-based fertilizer plants, and **high and low alloy steel castings** for the cement, rayon, paper, auto and railroad industries. A West Bengal conglomerate has received a letter of intent to produce 500 metric tons annually of each of the above items. Firm may need to import induction furnaces, centrifugal casting machines, shell core blowers and other equipment for the plant. A large consulting company represents the Indian firm. V. S. Bhave, Senior Economic Consultant, Tata Economic Consultancy Services (TECS), Orient House, Mangalore St. Bombay 400 038, India. WTDR. P-74253. OPIC.

3443—SPAIN—Seeks licenses to manufacture **cyclones, liquid separators,** and **electrostatic filters** for cement plants, iron and steel mills and boiler plants. Would market throughout Spain. Employs 180. Juan Ignacio Gimenez, Technical Director, Stein Baltogar, S.A., Calle Victoricha, S/N, Luchana-Baracaleo, Apartado 1131 Bilbao, Vizcaya, Spain. P-74239.

3551—FRANCE—Seeks licenses to manufacture **dehydrating equipment for all types of food products.** Also wants to produce **drying machinery for handling green forage and beet pulp for breweries.** Firm makes blowers, exhaust fans, and boilers. Operates two plants in France; has subsidiary in Spain. Robert Foursin, Manager, Societe Louis Prat, 17 rue Letellier, 75015 Paris, France. P-74248.

3559, 3585, 3679—AUSTRIA—Large company seeks licenses to produce **environmental protection equipment such as afterburners for motorcycles; central air conditioning systems for apartment and office buildings;** and **new processes for manufacture of printed circuit boards.** Presently, firm produces screw machine products, cold and hot formed parts and fittings for windows and doors. Its engineering department is involved in planning industrial plants. Company employs about 665 and reported 1972 sales of $8 million. It exports about 20 percent of annual output to 30 foreign countries. Enjoys excellent business reputation. Ing. Horst Bischof, Lapp-Finze

Eisenwarenfabriken A.G., A-8401 Kalsdorf, Austria. P-74240. Product brochures (in German) available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D. C. 20230. Firms responding to this opportunity are requested to send a copy of their correspondence to the U.S. Embassy, 1X Boltzmanngasse 16, A-1091, Vienna, Austria.

3559 — SWITZERLAND — Seeks a license to manufacture **solid waste disposal and recirculating equipment using the pyrolysis process.** Firm is a major producer of solid waste incinerating plants. It specializes in novel systems and does considerable R&D work in this field. Also cooperates closely with a prominent German company. Mr. Meier, OFAG (Ofenbau and Feuerungstechnik AG), Dufourstrasse 90, 8034 Zurich, Switzerland. P-74267. Copies of the firm's product brochures are available from the Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

3569 — FRANCE — Manufacturer of **water treatment equipment seeks to expand its product line** through a joint venture. Company also interested in cooperative marketing agreements with U.S. firms. French concern produces domestic and commercial water treatment and purification equipment for communities with up to 10,000 residents. Company employs 550 and reports 1972 sales of $4.4 million. Involved in design, engineering and maintenance of sewage treatment facilities, company has distributors in a number of foreign countries. G. B. Petit, International Division Manager, SOAF (Services Operationnels d'Assainissement en France), B.P. 363, 44012 Nantes Cedex, France. P-74266. Further details are available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

3585 — THAILAND — License or joint venture to manufacture a complete line of **air-conditioning equipment.** Would range from room type to central air conditioning units. Seeks capital and machinery. Firm is one of the major Thai trading companies. Is involved in distribution of heavy machinery, air conditioning units, electrical equipment, buses and other products. Has approximately 4,500 employes; annual sales of $2.5 million. Phornthep Phornprapha, Assistant General Manager, Air Conditioning & Electrical Division, Siam Motors Co., Ltd., 404 Phaya-Thai Road, Bangkok, Thailand. P-74268. Additional information available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

3585—THAILAND—Seeks licenses to assemble **window type air conditioners.** Would initially assemble 3,000-5,000 units annually. Needs technical know-how and component parts. Thai firm can finance project. Presently produces automotive air conditioners and refrigeration units for buses, trucks and fishing vessels. Reports annual sales of $1.5 million, employs 50. Currently represents U.S. firm. Thai company estimates domestic market for window air conditioning is 20,000-25,000 units per year. Walter E. Chad, Director and General Manager, Thai Heat Exchange Co., Ltd., 294/1 Rajthavee Circle, Phyathai, Bangkok, Thailand. P-74241. OPIC.

3611—YUGOSLAVIA—Joint venture to produce **cellulose pulp.** Croatian forestry organization plans to establish facility to manufacture 150,000 tons of cellulose annually from one million cubic meters of wood. Most of output would be exported. U.S. partner would operate plant on turnkey basis; provide technology, capital. Cost of project estimated at $65 million. Specification may be issued next 2-3 months. Mladen Novakovic, Director, Poslovno Udruzenje Sumsko Privrednih Organizacija, 41000 Zagreb, Mazuranicev Trg 6, Yugoslavia. P-74250. OPIC.

3613—PAKISTAN—Seeks license or similar agreement to manufacture 66 kv. and 132-kv. **switchgear and related equipment.** Firm produces machine tools, engines, pumps, electric motors and other products. Has facilities for sheet metal work, metal plating, painting and testing. firm is managed bly a Government of Pakistan agency. Daud Beg, General Manager, Electrical Division, Pakistan Engineering Co. Ltd., 6, Ganga Ram Trust Bldg., Shahrah-E-Quaid-E-Azam, Lahore, Pakistan. P-74242. OPIC. Further details available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D. C. 20230. OPIC.

3613 — THAILAND — Major trading company seeks license or joint venture to manufacture **electrical equipment.** Firm's product interests include **switchgears, transformers, motors, circuit breakers, overhead and underground cable.** Seeks capital and machinery. Company presently handles air conditioning units, electrical equipment, heavy machinery and other products. Employs about 4,500; is one of Thailand's largest companies. Phornthep Phornprapha, Assistant General Manager, Air Conditioning & Electrical Division, Siam Motors Co., Ltd., 865 Rama I Road, Bangkok, Thailand. P-74269. OPIC.

3714 — ITALY — Major manufacturer of steering locks and variety of electrical signals and control devices for motor vehicles seeks licenses. Wants to produce **electro-mechanical components for automobiles and trucks.** Range of product interests include **directional light flashers, relays, starting, lighting and ignition switches, rheostats, thermometric, top light and push button switches, pressure indicators and anti theft steering locks, with and without ignition starting switches.** Company particularly seeks technical know-how in conjunction with manufacture of above products. Firm reportedly supplies 75 percent of Italian original equipment automotive market. Also exports large portion of its output to EEC countries, Africa and Asia. The company operates a highly efficient 33,000 sq. m. plant near Turin and employs 1,000. Dott. Ing. Mario Battaglia, Product Planning and Application Manager, SIPEA, S.p.A., Via XXV Aprile 46, 10042 Nichelino (Torino), Italy. WTDR. P-74244. Additional details and copies of the firm's product brochures (in Italian) are available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D. C. 20230.

Report Available On Potential For Investment In East Java

A recent comprehensive report by the U.S. Consulate in Surabaya, Indonesia, describes the city and the surrounding area of East Java as a suitable location for foreign investment. It notes that Indonesia has been encouraging investment outside of the Jakarta area and has limited foreign investment in certain industries in Jakarta. As a result, Surabaya is attracting increasing attention by potential foreign investors.

Major areas covered in the report include present industrial development in Surabaya, a description of infrastructure facilities and a review of major production factors such as land and labor availability and costs. The report contains information on plans to improve Surabaya's shipping, communication, utilities and transportation arteries. Also included is a description of living conditions in the Surabaya area which covers health, education, and recreation facilities. For a copy, write: Foreign Market Reports Unit, Room 1033, U.S. Department of Commerce, Washington, D.C. 20230, referring to DIB No. 74-06-001. P-74237. OPIC

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the U.S. under a licensing agreement or in partnership, write the Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.

AUSTRALIA—A U.S. licensee is being sought by an Australian firm for manufacture of easily assembled **fiberglass modules** used as framework in pouring of concrete floors and ceilings. This system of construction is claimed to be specially suited for multi-story buildings, and to require less concrete, involve lower costs, allow use of unskilled labor, and make possible greater construction speed. **File 2570**

CANADA—A **water purification system** utilizing ultra-violet rays is being offered for manufacture under license in the United States by a Canadian company. The system can be used in homes and on farms, is capable of handling up to 250 gallons per hour, and is fully automatic and easy to install. It has been patented in 12 countries, including the United States. **File 2571**

SWITZERLAND—A Swiss firm seeks a U.S. licensee for manufacture and distribution of a new **rust and protection agent for iron and steel.** The product is particularly suitable for bridges, industrial buildings, pipelines, automobiles, and earthmoving equipment, but can also be used in homes. It is free from mineral acids, transforms rust into a corrosion-protective coating, and can be applied by painting, spraying, rollering, or submersion. **File 2572**

SWITZERLAND—A Swiss company is offering for manufacture and marketing under license in the United States its complete line of **household cleaning preparations,** including toilet and bathroom cleansers and deodorants, detergents for cleaning and polishing stoves and metal fixtures, insecticides, and shampoos for carpets, upholstery, and textiles. **File 2574**

SWITZERLAND—A Swiss firm specializing in automatic automobile parking systems, metal constructions, and advanced modules and processes for the construction industry is seeking a U.S. licensee for its semi-automatic, space-saving **pallet car parking system.** This low-cost system is patented in a number of countries, including the United States. **File 2385-R**

GERMANY—A German firm wishes to acquire a partnership or majority interest in, or full ownership of, an existing U.S. firm in the fields of **lasers and laser techniques, electro-chemical corrosion protection, high-technology metallurgy, or rare earths. File 2575**

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, Room 1322, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material must specify country, commodity, foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

Direct Sales

Foreign private firms are interested in agency agreements and/or distributorships for these products. See also "Representations" listings.

Animal specialties

02790 — SPAIN — Bottle-nose dolphin (tursiops truncatus), 2 male and 3 female, age 2-3 years. Zoos Ibericos, S.A., operates Madrid Zoo, one of the largest in Spain and, reportedly, one of the best in Europe. Firm is interested in immediate delivery and requires animals either domesticated or not. Call or cable— Mng. Dir., Zoos Ibericos, S.A., Casa de Campo, Madrid (11). Cable Zoo Madrid; tel. 711-9950.

Coal

12110 — THAILAND — Coal. Min. quantity required 1,000 mt. tons. Request f.o.b. cost at port of loading including packing charges, fees & all expenses incurred at port. Coal analysis to be submitted together with quotation. Method of packing to be submitted for consideration. Seller must comply with following instructions in regard to delivery of materials: A) booking & shipping arrangement from f.o.b. port of loading must be effected through official appointed shipping & forwarding agents to gov. of Thailand, Messrs. E. T. O. resp., their accredited nominees at port of shipment. B) it is responsibility of supplier to indicate necessary shipping details & requirements at least four weeks prior to f.o.b. delivery date as so-called notice of readiness to be consigned to shipping agent at port of shipment. Seller must complete 2 copies of addendum. If available, seller must furnish name of local representative. Quotation must be submitted to stores superintendent by June 17. There will be no obligation to this price inquiry. Pending the result of price comparison, State Railway of Thailand, a state-owned enterprise, is planning to use coal on their locomotives instead of wood, which becomes rare and expensive. Reply to—Mr. Cherd Boonyaratavej, Stores Superintendent, State Railway of Thailand, Krungkasem Road, Bangkok.

12110 — TURKEY — Coal for use in coking ovens. Annual requirements: 1.4 million tons. Iron ore. Annual requirement: 2.5 million tons. Both coal and iron ore intended for new Iskenderun iron and steel mills expected to go on stream by end 1975. Reply to—Mumtaz Akman, Ak-ay Sanayi Mamulleri Ithalat ve Ihracat Ltd., Haci Izzet Pasa Souak 32/4-6, Gumussuyu, Istanbul. Cable Ayyildiz-Istanbul; tel. 441649.

Miscellaneous nonmetallic minerals, except fuels

14990 — TURKEY — Diatomaceous earth-kieselguhr—for use as filter in brewing process, consumption 450 tons annually. Reply to—Sermet Kuntman, Gen. Mgr., Efes Pilsen Brewery, Kemalpasa Asfalti, Izmir. Cable: Bira Malt Izmir; tel: 81960.

Construction

●16100 — BOLIVIA — Construction of an all-weather road from San Ramon to Trinidad. The bid-letting authority is the Comite de Obras Publicas de Santa Cruz, which will obtain revenues of over US$30 million in oil royalties in 1974. The road specifications can be purchased for $B1,000 (US$50) from Mr. Mario Foianini, Comite de Obras Publicas, Santa Cruz, Casilla 218, Santa Cruz. Quotations must be submitted by June 11. One copy of the specifications should be available soon for review in the office of the Construction & Building Materials Program, Room 2118, U.S. Dept. of Commerce, Washington, D.C. 20230 (telephone: 202-967-3602).

16200 — ECUADOR — Prequalification of firms for construction of transmission lines for Pisayambo hydroelectric project. Project includes: in-country transportation of equipment for substations and materials for transmission lines, construction of substations and related works, and construction and mounting of transmission lines. Prequalification deadline is June 12. Additional information along with basic requirements for prequalification may be obtained from Construction & Bldg. Materials Program, Room 2118, U.S. Dept. of Commerce, Washington, D.C. 20230 (telephone: 202-967-3602), or U.S. Dept. of Commerce District Office, 11444 Federal Bldg., 450 Golden Gate Ave., P.O. Box 36013, San Francisco, Calif. 94102 (telephone: 415-556-5864).

16200 — TAIWAN — Prequalification to tender for construction of the following bridges: 1) Ta An Chi Bridge, length 1,271 meters with 37 spans, width 25 meters; 2) Ta Chia Chi Bridge, 1,050 meters with 30 spans, width 25 meters; 3) Ta Tu Chi Bridge, 1,050 meters with 30 spans, width 25 meters; and 4) Cho Shui Chi Bridge, 2,310 meters with 66 spans, width 25 meters. Construction costs of these bridges (Tender No. C63-523-1 (3)) will vary from US$6 million to US$15 million. Contractor will receive 30 percent advance payment upon contract signing. There is an adjusting formula for cost escalations (materials and labor). Prequalification documents and forms are expected to be available soon from Construction & Bldg. Materials Program, Room 2118, U.S. Dept. of Commerce, Washington, D.C. 20230 (telephone: 202-967-3602). Prequalification documents must be received on or before May 31 by Taiwan Area Freeway Construction Bureau, Ministry of Communications, 33-3 Chi Nan Road, Sec. 2, Taipei (100), Republic of China. Bids will be requested in early 1975. At least 60 days will be allowed for preparation prior to the bids opening date.

Pulp mills, products

2611226 — PAKISTAN — 500 long tons unbleached kraft pulp for mfr. of corrugated board & its carton. Burst factor: 35 to 40; breaking length: 8,000 to 10,000 meters; permanganate no.: 22 to 25; moisture: 4 to 6%. Approx. value: $225,000. Buyer, newly estab. large corrugated paper & board mfg. industry, expects to go into production in near future. Annual requirements of woodpulp projected at 2,000 tons to be imported on quarterly basis at 500 tons ea. qtr. Buyer seeking estab. long-term relationship for purchase of woodpulp. Delivery of initial order required by mid-74. Sea-worthy packing desired. Quote c & f Karachi per long ton against l/c. Purchase decision to be based on price, rapidity of delivery & reliability of seller. Reply to—Mr. Ahmed Ebrahim, Dir., Chilya Corrugated Board Mills Ltd., Sattar Chambers, 29, West Wharf Rd., P.O. Box No. 5764, Karachi-2. Cable: "Corrugated" Karachi; tel. 222044, 238225.

2621259 — AUSTRIA — 40,000 metric tons waste paper. Inquirer imports for his own account. Sells to local paper industry. Offers with price quotations (fas U.S. east coast) & delivery dates requested. Offers for partial quantities welcome. Reply to—Paul Stallmeister, Owner, Paul Stallmeister, Industrie-Vertretungen, Grabenstrasse 26, A-5020 Salzburg.

Paperboard containers, boxes

2654321 — GUYANA — MG white bleached poster paper or MF white wood free paper assortment for mfr. of drinking straws. 45 grams per square millimeter 7/16" wide reels makeup on pulp cores with 2" diameter. Packing-50 rolls together on wooden roll packed for export. Protected by hardboard ends. Call Mr. Frank Dornford, Prop., Demerara Products, 'S' Freeman St., East La Penitence, Greater Georgetown, Tel 63491.

Synthetic materials

2821XXX — MAURITIUS — Firm urgently in need of 120 tons ureaformaldehyde in powder form for mfr. of particle boards equivalent to CIBA's Aerolite CB powder. Reply to Harel Mallac & Co., 18, Edith Cavell St., P.O. Box 36, Port Louis.

Soap, detergents, cleaning preparations, perfumes, cosmetics

2841451 — MALAGASY REP. — Glycerin, at least 99% chemically pure. Annual consumption—15 mt. tons. Wishes to receive price quotations (c.i.f. Port of Tamatave if possible). Reply to—Paul Hetreau, Dir., Societe Malgache des Laques Valentines (Somalaval), Tamatave. Cable Nosseb.

Agricultural chemicals

●28700 — IRAN — Ammonium phosphate (18-46 or 47-0), 20,000 to 50,000 metric tons. Tender number not available. No specific bid deadline indicated, delivery during July-August. The Fertilizer Distribution Co., Ministry of Agriculture and Natural Resources, Tehran, is interested in obtaining bids on above item. Bids should be forwarded to above address. Tender documents and specifications, when received, will be available from the Chemical and Rubber Program, Materials Division, OBRA, Room 2130, U.S. Department of Commerce, Washington, D.C. 20230. Phone 202-967-3468.

Fabricated rubber products

3069814 — PORTUGAL — Cotton backed latex foam for brassiere mfr. Requests prices. Dir. sale & rep. Cable—Jose Pinto Botelho, Travessa do Covelo, 46, Oporto. Cable: Jotelho, Oporto; tel 482320.

Abrasive, asbestos, nonmetallic mineral products

3296011 — MALTA — Three glass fiber horizontal cylindrical oil storage tanks suitable for grade 2 fuel oil, ea. measuring 4.00 meters long by 1.60 meters dia. fitted with one ea. following accessories:—3 in. vent in top with Emco Wheaton C-0062, or equal, mushroom vent cap; 2 in. outflow in one end with Emco-Wheaton A0439, or equal, double poppet foot valve & A7400-001 foot valve extractor; 18 in. dia. manhole in top with Emco-Wheaton A-0717, or equal, manhole ring & cover; 4 in. fill line in top with Emco-Wheaton -0761, or equal, fill line fitting; 2 in. drain connection in bottom; level indicator complete with glass & gauge cocks. Also one glass fiber horizontal cylindrical fuel oil storage tank 4.50 meters long by 0.9 cms dia. fitting with one of ea. of following accessories: 3 in. vent in top with Emco-Wheaton C-0062, or equal, mushroom vent cap; 1.5 in. outflow in one end with Emco-Wheaton A0439, or equal, double poppet valve & A7400-001 foot valve extractor; 18 in. dia. manhole in top with Emco-Wheaton A0717, or equal, manhole ring & cover; 1.5 in. fill connection in top with Emco-Wheaton A0761, or equal, fill line fitting; 2 in. drain connection in bottom; 1 in. oil return connection in top; level indicator with glass & gauge cocks; provision for high & low level float switches. Firm acts as design, electrical & mechanical engineer & contractor. PLI has reps. in Dubat, United Arab Emirates & Tiyadh, Saudi Arabia. Presently firm most engaged on contracts in Middle East. Required c.i.f. Jidda (Saudi Arabia) prices & above products ASAP. Reply to—Mr. Bria Groves, Dir., Panta Lesco International Ltd., P.O. Box 59, Panta House, Vallet Road, Msida. Cable: Panta-Malta, Tel: 41361.

Steel mill products

33100 — ECUADOR — 5,000 mt. steel ingots, ASTM degree 40, corresponding to any of the following: 2,800 kgs/sq. CM., 3,500 kgs/sq. CM., or 4,800 kgs/sq. CM. Request for offers. Purchase will be made as soon as any reasonable offer is received. Institute Ecuatoriano de Electrificacion (Inecel), Casilla 565A, Quito. Purchase to be financed from U.S. AID loan. Further details available at above address.

Rolling, drawing, extruding of nonferrous metals

●33500 — INDIA — 33 KV power cables and accessories for 377-inch transmission and distribution project. Tender No. IDA/TATA/3; bid deadline July 15. Chief Engineer, Tata Power Co., Ltd., Tata Vidyut Karyalaya, Murzban Rd., Bombay 400 001. Tender documents available at above address at a cost of $13.75.

3356971-02 — LIBERIA — Zinc sheeting for roofing. Annual sales potential estimated $240,000. Buyer desires firm quote initial shipment 100 tons, preferably 2½ ft. x 8 ft. x 28-36 B.G. Cable, telex or airmail—Mr. C. J. C. Van Aalst, Gen. Mgr., Oost Afrikaansche Compagnie (OAC), P.O. Box 281, Monrovia. Cable: Jupiter, Monrovia; telex 4233. Dir. sale & agency.

Primary metal industries

3399298 — UNITED KINGDOM — Steel burnishing balls of carbon chrome steel to specification SAE 52100 or alternatively EN3L. Finish to be deep hardened to 6066 HRC & ground & polished to high surface. Imperfections of shape will be rejected. Sizes all plus or minus 10%: 3/16 ins., 5/32 ins., & 7/32 ins., dia. Spherical tolerance all sizes plus or minus 0.005 ins. Quantities: 3 tons every other mo. 50% 3/16 ins. dia., 25% ea. 5/32 ins., & 7/32" dia. Packaging specifications on application. Price & delivery quotations requested. Reply to—E. J. Bradley, Production Dir., Imperial Machine Co. (Peelers) Ltd., Harvey Road, Croxley Green, Hertfordshire WD3 3AX. Cable: Impromachi Rickmansworth; tel: 87-79311; telex: 935194.

Fabricated structural metal products

3449452 — ECUADOR — 100 tons, concrete reinforcing bars, 9 meters long. Approx. dia.: one in. fluency limit per sq. centimeter: 4,200 kilograms. 100 tons, concrete reinforcing bars, 11 meter long. Other specifications same as above. Quote by cable c & f Puerto Bolivar, Ecuador against l/c. Empresa Electrica El Oro, which is interested in this one-time sale, is the privately-owned public utility supplying electric light & power to almost entire El Oro Province (pop. 288,000). 1973 sales $560,000. Staff: 130. Cable—Rodrigo Laniado-De-Wind, President, Empresa Electrica El Oro C.A., P.O. Box 716, Machala. Cable Empresa Electrica El Oro; tel 779291.

Construction, mining, materials handling machinery, equipment

●35300 — BOLIVIA — Exploratory drilling services for petroleum and gas. Tender No. 200/74: bid deadline May 27. Yacimientos Petroliferos Fiscales Bolivianos Asesoria Legal, Casilla 401, La Paz. Review copy of specifications available from the Transportation and Capital Equipment Division, 464, Room 2806, Department of Commerce, Washington, D.C. 20230. Phone (202) 967-5593.

●35300 — INDIA — Well drilling equipment: 4 hammer drills 200 PSI; 6 percussion drills; 10 air compressors 200 PSI; 10 hammers 200 PSI; 10 mud pumps; 20 hammers 100 PSI. Spares: 100 drilling bits; 50 drilling jars; 50 hammer bits. Tender No. not specified; bid deadline June 17. The Director of Agriculture, Government of Tamil Nadu Chepauk. Madras 600005. A review copy of specifications is available from the Transportation and Capital Equipment Division, 464, Room 2806, Washington, D.C. 20230. Phone (202) 967-5593. Additional copies are obtainable from above address by remitting $13.33 (RS 100) per copy.

Special industry machinery

●35500 — IRAN — One belt sawing machine together with related component parts. Tender No. 2771/52: bid deadline May 25. Ministry of Roads, Iranian State Railways, Tehran. A review copy of specifications is available on a short-term loan basis from Transportation & Capital Equipment Division, Room 2806, U.S. Department of Commerce, Washington, D.C. 20230, phone (202) 967-5593.

●35500—URUGUAY—A turnkey hydrocarbon pipe gas production plant. Tender no. 2137/973-347/974; bid deadline June 24. Compania del Gas & Dique Seco de Montevideo, 25 de Mayo 706, Montevideo. Specifications, in Spanish, available on a short-term loan basis from the Transportation and Capital Equipment Division, Room 2806, U.S. Dept. of Commerce, Washington, D.C. 20230, phone (202) 967-5593.

35500—YUGOSLAVIA—Austrian engineering firm Saling Industrieanlagen Gesellschaft M.B.H., of Argentinierstrasse 22, A-1040, Vienna (cable: Saling Planung Wien; telex: 01/1560), interested in locating U.S. suppliers of turnkey installation for production of protein from waste leather. Plant should be able to handle about 15 to 20 tons of waste leather per day. Plant is for installation in Yugoslavia in 1975. U.S. manufacturers or engineering firms having required know-how and able to supply related machinery and equipment are urged to contact Austrian firm directly.

Office, computing, accounting machines

●35700—ALGERIA—The Commissoriat National a L'Informatique 4, Blvd. Mohamed V, 8 Eme Egage, Algiers, has issued a tender for computer software for electronic handling of social security system matters. Bid deadline is June 7. Tender documents cost 500 DA (approximately $131.58), available from above address. Partial offers acceptable. Correspondence in French required. Copies of tender announcement and specifications available from above address.

●35700 — IRAQ — The Secretariate, MOI Computer Committee, c/o State Organization for Textile Industries, Rafidain Bank Bldg., Rashid St., Baghdad, has issued a tender for supply, installation and maintenance of electronic data processing system for Ministry of Industry, Baghdad. Bid deadline is June 1. Copies of tender announcement and specifications are available from above address.

357410, 357910, 357200 — POLAND — Bank Handlowy is seeking to import from the West electronic calculators, electric typewriters, reprographic machines, telex equipment, and advanced office equipment and machinery. Most urgently needed is equipment for microfilming checks. Purchases may be substantial. The Bank requests that firms producing this equipment send catalogues to Bank Handlowy, Warszawie SA, Trugutta 7, Post Box 129, 00-067 Warsaw, Poland, Attention: Antoni Jezowski, Specialist for Technical Affairs.

Electric transmission, distribution equip.

●36100 — NIGERIA — Supply and installation of two 145 MVA, 3 phase, 50 hertz, FOW cooled, generator transformers. Also 330 KV switchyard structure and switchgear. Tender No. not available, bid deadline July 1. Manager of Engineering Department, National Electric Power Authority (NEPA), 24/25 Marina, Private Mail Bag 12030,

Lagos. Contractors are to apply for inclusion to list of tenderers by indicating legal and financial status and evidence of ability to undertake work of this nature and magnitude. Copies of applications should be sent to Consulting Engineers, Montreal Engineering Co., Ltd., P.O. Box 777, Place Bonaventure, Montreal, H5A IE3, Quebec, for attention of Mr. J. Duthie, Project Manager, Kainji Dam Powerhouse Extension.

●**36100—EL SALVADOR**—Design, supply and construction of electric power transmission substation. Materials include metal structures and buildings, circuit disconnectors, power fuses, collector bars and insulators. Tender No. CEL-434, bid deadline July 2. Comision Ejecutiva Hidroelectrica Del Rio Lempa Cel. 9A Calle Poniente $950, Centro De Govierno, San Salvador C.A. Interested parties should send summary of experience in design and manufacture of similar equipment, report of financial resources, description of plant and organization, bank references, etc., to Harza Engineering Co., 150 South Wacker Dr., Chicago, Ill. 60606.

●**36100—NIGERIA**—Supply, erection and commissioning of electrical distribution system in Eastern Nigeria to include approximately 1,200 miles of overhead 33 KV transmission lines, and 250 miles of 415 volt distribution networks. Also 300 units of 50 KVA and 100 KVA distribution transformers for 33/0.415 KV and 11/0.415 KV systems. Tender No. not available, bid deadline June 28. Manager of Purchasing Department, National Electric Power Authority (NEPA). Electricity Headquarters, Private Mail Bag 12030, Lagos. Bidder is to indicate legal and financial status and recent experience in work of similar nature and magnitude. Project financed by IBRD. Four sets of tender documents available from NEPA upon payment of fee of $153.

Electric lighting, wiring equipment

●**36400—EGYPT**—Supply of navigational aids: 74 red lanterns; 70 green lanterns and 15 clear lanterns; 15 range or leading lights; radar reflectors; 3,000 lamps, 12 volt, 0.55 amp.; and batteries for floating buoys (2,000 cells) and 1,000 batteries for fixed stands. Spart parts to include: lenses, flashers, photoelectric cells and lamp chargers. Tender No. 150/103/21/1913/15, bid deadline May 25. Suez Canal Authority, Procurement Dept., Nasr City, Cairo. Specifications, when received from Post, will be available for loan on a short-term basis from the Transportation & Capital Equipment Division, Room 2806, BDC, U.S. Dept. of Commerce, Washington, D.C. 20230. Telephone: (202) 967-3525.

Communications equipment

●**36600 — COLOMBIA** — The Corporacion Autonoma Regional del Causa (CVC), Edificio Banco Central Ripotecario, Carrera 3 No. 10-60, Oficina 301, Cali, Valle, Colombia, has issued tender No. AA-30B for installing and placing in service a power line carrier system and other communication and accessory equipment. Bid deadline June 4. All bids must be accompanied by a guarantee bond of U.S. $35,000 valid for 120 days. Estimated cost of project approximately $600,000 to $700,000. Copies of tender announcement and specifications are available from above address for approximately U.S. $160, and U.S. $16 for each additional copy.

●**36600 — GUATEMALA** — The Empresa Guatemalteca de Telecommunicaciones Guatel, Div. Planeamiento y Diseno, 7A. Avenida 12-39, Zona 1, Guatemala City, has issued tender no. Licitacion publica guatel 7-74 for direct dial telephone switching equipment. Purchase value is estimated between $1.5 and $2 million. Bid deadline June 28. Copies of tender announcement and specifications available from above address at a cost of U.S.$25.

●**36600—TRINIDAD, W.I.**—The Revenue Accountant, Rates & Regulatory Matters, Trinidad & Tobago Telephone Co., Ltd., P.O. Box 917, Port of Spain, Trinidad, W.I., has issued a tender for 24,600 telephones and approximately 500,000 sheath feet of assorted cable for outside plant projects throughout Trinidad and Tobago. Copies of tender announcement and specifications available from above address, or on a short-term loan basis to firms located in the U.S. from the Science and Electronics Division, BDC-466, Room 1001, U.S. Dept. of Commerce, Washington, D.C. 20230, telephone (202) 967-2939, when received.

Surgical, medical, dental instruments

●**38400 — ALGERIA** — The Direction des Services Financiers, Ministere de la Defense Nationale les Tagarins, Algiers, has issued tender No. 3-74 Sante for medical equipment for military health direction. Bid deadline is May 25. Offers to remain valid 90 days past bid deadline. Correspondence in French required. Copies of tender announcement and specifications available from above address.

Manufacturing industries

3999998 — MOROCCO — Decorative multicolor metallic flakes for lamination on plastic sheeting. Firm is specialized in mfr. of decorative plastic sheeting. Seeks U.S. supplier for direct purchase. Reply to: Mr. Driss Sekkato, Societe Vlastima, 275 Blvd. Yacoub el Mansour, Casablanca. Tel. 25-33-26.

Business services

73920 — BOLIVIA — A consultant company is requested to establish a materials control system, recommend a computer and its software. The consulting firm must have experience in the oil industry. Reply to—Direccion de Planeamiento, Yacimientos Petroliferos Fiscales Bolivianos, Casilla 501, La Paz. Cable: Yacibol.

Czechoslovak Technical Library Seeks U.S. Commercial Catalogs

The Trade Publications Section of the Czechoslovak State Technical Library in Prague is seeking commercial catalogues as well as industry directories and other trade publications from American firms producing industrial and technical equipment.

The State Technical Library is the central national repository for foreign commercial catalogues, directories and other trade publications from foreign technical companies. The Trade Publications Section's primary function is to provide a reference service for Czechoslovak enterprises wishing to buy foreign equipment.

American firms may send catalogues for forwarding to: American Embassy, Trziste 15, 125 48 Praha 1, Czechoslovakia.

Sri Lanka Needs Project Advisor

A notice issued by the Director of Fisheries, P.O. Box 531, Galle Face, Colombo 3, Sri Lanka, requesting the services of a project advisor to provide consulting services in connection with the Island's fishery services, is available from the U.S. Department of Commerce, Trade Opportunities Program, Rm. 1322, Washington, D.C. 20230. The consultant's services are required in Sri Lanka for a period of 18 months commencing in November. Proposals received by Director of Fisheries until May 31.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Chemical & fertilizer mineral mining

14770 — MALTA — Mineral sulphur, 200/300 tons annually. Product needed for next season. c.i.f. Malta prices requested. Payment initially by letter of credit; later by cash against documents. Reply to—Mr. M. Agius Vadala, Mng. Dir., Mr. R. Stilon, Mgr., Vadala Co. Ltd., 62/3 Old Bakery St., Valletta. Cable: Vadala-Malta tel: 25974, 26636. Excl. Agency & Dist.

Wood products

2499498 — AUSTRALIA — Rolls of bulletin board cork in roll sizes 90 lineal ft in widths of 48" & 72" & of ¼" thickness used as pinup board or bulletin board surface to attach notices. Interested in importing unlimited quantities depending on quality & price. Reply to: Mr. G. A. Tims, Charles Tims Pty Ltd., 379 Somerville Road, West Footscray 3012 Victoria. Cable: Patina, tel: 314 0066.

Paper mills

2621710 — JAPAN — Unbleached kraft packaging & industrial converting paper (wrapping). Price range, volume desired, & precise specifications to be determined in correspondence between buyer & U.S. supplier. Buyer foresees trial shipment at first, followed by continuing orders. Reply to—Mr. S. Hayashi, Pres., Pan Japan Trading Co., Ltd., 5-20 Kumamoto 3-Chome, Kokuraku, Kitakyushu 802. Tel. (093) 941-5391. Excl. agency.

Drugs

28340 — BOLIVIA — Pharmaceutical preparations of all kinds & quantities. Firm represents European firms but desires to add U.S. lines. Reply to—Gustavo Zeballos U., Emdora Ltda., Casilla 975, La Paz.

Structural clay products

32530 — GERMANY — Ceramic wall & floor tile, including mosaic tile, glazed & unglazed. Reply to—Mr. Friedrich Bachmann, Wilhelm Bachmann & Sohn, Osterdeich 87, Postfach 974, 28 Bremen. Cable: Baukeramik Bremen. tel 0421-490748. Excl. agency or distributorship.

Steel mill products

3315771 — BOLIVIA — Steel woven wire in following dimensions—no. rolls/length/width/mesh/wire dia.: 5, 50 ft., 36", 8, .048"; 5, 50 ft., 24", 18, .024"; 5, 50 ft., 24", 20, .022"; 5, 50 ft., 24", 24, .018"; 5, 50 ft., 24", 30, .015"; 5, 50 ft., 24", 40, .0092"; 5, 50 ft., 24", 50, .0076". Quotations c.i.f. Matarani, Peru, including 10% commission. WTDR 12/73. Reply to—Ricardo Velasco, Rivek, Casilla 5797, La Paz. Cable: "Rivek" La Paz.

Primary smelting, refining

3339763 — BOLIVIA — Electrolytic 21" x 27½" bales tin/plate. Less than 1 mt., between 40 to 50 mt. mo. C.i.f. Matarani, sight draft on 180 days letter of credit. Price will include 5% commission for agent. Correspondence in Spanish & English. WTDR 12/73. Reply to—Ricardo Velasco Kruger, Rivek, Casilla 5797, La Paz. Cable: Rivek, telex: PBBX5398 (R.C.A.).

Special industry machinery

3564441 — KENYA — Industrial fans similar to range mfr. in U.K. by Woods of

Colchester. These include propeller fans, axial flow fans, centrifugal fans. Buyer is one of leading mfrs. & dealers in industrial air conditioning & refrigeration equip. in east & central Africa. A wholly owned subsidiary of Hall Thermotank Ltd., London. Co. seeking agency-agreement from U.S. mfrs. of industrial fans, & may consider importing finished products or carry out local assembly of parts supplied by mfr. Contact buyer—Mr. B. Wilson, Gen. Mgr., Hall Thermotank Equatorial Ltd., P.O. Box 30663, Nairobi. Cable: "Hallover Nairobi," telephone: 557533.

General industrial machinery

3566035 — 3566036 — 3566038 — 3566039 — 3621221 — 3621222 — 3621223 — 3621226 — CANADA — Polyphase-induction ac motors in range from 1 to 125 hp; must be explosion proof for use in industries processing flammables. Projected sales during 2nd yr. could easily be $300,000. Speed-reducing, gear motors both worm and helical-herringbone types ranging from 1 to more than 5 hp. First yr. sales volume expected to be between $25,000 and $100,000. Potential for rep. considered to be $500,000. Mr. Rennie has specified distribution rights would have to be Canada-wide & would prefer, but not insist on, excl. distributorship. Sales would be to present OEM accounts in processing industries. Telex, call or write—Mr. Duncan Rennie, V.P., Crompton Parkinson Electrical Ltd., 9246 Boivin St., LaSalle, Quebec H8R 3T7. Telex 05-24193; telephone (514) 363-0363.

Scrap & waste materials

50930 — AUSTRIA — Used clothing (rags) for production of regenerated textile fibers. Annual requirements: 20,000 tons and more. Inquirer seeks agency arrangement. Sells to textile manufacturers in Austria, Italy (Prato), and Holland. Operates on 3 percent commission basis. Documented offers quoting prices (c.i.f. Amsterdam or Genoa) and stating delivery dates urgently requested. Payment terms: c.o.d. Reply to— Albert Hannemann, Owner, Albert Hannemann, Auhofstrasse 114, P.O.B. 106, A-1130 Vienna. Cable Noils Wien; tel. 8247303.

Future Construction Abroad

CANADA—Plans have been announced for construction of an **800-room hotel in downtown Montreal,** to be built by the Place Victoria St. Jacques Co. Ltd., 800 Victoria Sq., Montreal (Tel: 514/875-5170) and managed by Hyatt International of Chicago. Architects are David & Boulva, 1253 McGill College St., Montreal (Tel: 514/866-9854). General contractor is Louis Donolo Inc., 8320 St. Lawrence Blvd., Montreal (Tel: 514/387-2535). Interior designer is Henry End of New Orleans, Louisiana and the hotel technical work, including contracting for furniture, fixtures and equipment, will be done by Hyatt International. The developer expects construction contracts for this project will be let locally and no date has yet been set for calling sub-trade tenders. U.S. firms wishing to express interest should communicate with Hyatt International, 39 S. LaSalle St., Chicago, Ill. (Tel: 312/782-0100).

LEBANON — Housing and Cooperatives Minister Michel Sassine is seeking U.S. firms willing to assume responsibility for both **financing and construction of the Lebanese Housing Program.** The Government of Lebanon has necessary land and detailed plans for construction. Necessary loans would be backed by a government guarantee and the government would also assure granting of required licenses, permits, etc.; the firm would be dealing directly with the Ministry. Interested firms should contact Minister Michel Sassine, Ministry of Housing and Cooperatives, Beirut.

NEW ZEALAND — H. Baigent and Sons Ltd., P.O. Box 44, Nelson, plans to establish an NZ $14 million (NZ$1 = U.S.$1.4513) **groundwood pulp mill** and is **seeking loan capital.** Value of the new plant and equipment may amount to approx. NZ$5 million. The company has retained as its consultant the Canadian firm Sandwells & Co., Ltd., 1558 Alberni, Vancouver, B.C. Construction to begin before the end of this year and to commence production by the end of 1976.

POLAND—Mr. Bipromasz, Design Office of the Polish Machine Industry, announced major projects under consideration for **construction of new plants in the optical industry.** One plant will manufacture high-precision optical glass and another metal elements for use in optical instruments. Lenses to be produced by the optical glass plant are intended for a wide range of uses, including school microscopes, scientific research instruments, lasers, telescopes, binoculars, etc., but not eyeglasses. Sole interest of the Polish industry is in construction of production facility, and obtaining new technology, not in purchasing finished products. Equipment sought for the metal components plant consists primarily of precision machine tools specifically designed for optical industry applications. The Poles wish to begin construction on both plants in 1975. Firms desiring additional information or wishing to submit offers should contact: Mr. P. Goscinski, Polimex-Cekop Foreign Trade Enterprise, UL. Czackiego 7/9, 00-043 Warszawa, Poland.

ITALY—Construction of the **Frejus Auto Tunnel** linking Bardonecchia, Italy to Modane, France is expected to begin by October or November of this year, according to Dr. Pier Domenico Clemente, Director, Societa' Italiana per il Traforo Autostradale del Frejus (SITAF). SITAF is responsible for construction of the tunnel project on the Italian side of the border. Invitations to bid on this project were tendered recently and although the actual construction bids will be let only to four to six EEC-based companies, subcontracting for equipment and other technical assistance will be open to all. This project offers especially attractive sales opportunities to U.S. manufacturers of heavy construction equipment, especially boring and tunneling equipment, ventilation, electrical lighting, and traffic control systems. U.S. companies should contact Dottor Pier Domenico Clemente, Direttore, Societa' Italiana per il Traforo Autostradale del Frejus (SITAF), via Maria Vittoria 12, 10123 Torino. The equivalent company in France to contact is: Societe Francaise du Tunnel Routier du Frejus (SFTRF), Tour Gamma D, 58 Quai de la Rapee, 75583 Paris, Cedex 12.

GERMANY—The Lord Mayor of Munich announced plans for construction of **two major hospitals** which will provide the city with an additional 2,300 hospital beds. The larger of the two, the Krankenhaus Bogenhausen, will have 1,259 beds. It will specialize in neurosurgery and will have a psychosomatics department, as well as a center for internal medicine. The other hospital, the Klinikum Augustinum, which will be located southwest of Munich at Grosshadern, will have 1,050 beds and will specialize in geriatrics and neurology. Both projects provide an excellent opportunity for U.S. manufacturers of electronic medical equipment. Construction will begin on both hospitals within the next two years and should be completed by 1980. Bids for medical equipment will not be requested before 1976. Interested U.S. suppliers should establish at an early date direct contacts with procurement officials at the following addresses: For Krankenhaus Bogenhausen: Krankenhausreferat der Stadt Muenchen, 8 Muenchen 2, Ledererstrasse 17/II. Attn: Huerr Wuerzinger, Tel: 2158866. For Klinikum Augustinum: Verwaltung des Stiftklinikums, Collegium Augustinum, 8 Muenchen 70, Stiftsbogen 74, Tel. 71021.

MALAYSIA — Penang Port Commission, P.O. Box 143, Penang, invites contractors to prequalify for bidding on the **following contracts:** 1621 Reclamation Contract; 1621 Civil Works Contract; 8911/1611 Mechanical Equipment Contract; 1621 Construction of Berth # 6 at Penang. For further particulars of contracts and details of prequalification procedure write to The Secretary, Penang Port Commission (address above) stating which contracts interested in for prequalification. Prequalifications deadline is June 4. Foreign exchange costs may be financed in part by an ADB loan.

KUWAIT—Kuwait University intends to construct an entirely **new campus.** In addition to colleges, Kuwait will establish a medical school in conjunction with the Sabah Hospital, which will add an outpatient and casualty clinic. The University will most likely employ a great deal of expensive teaching aids and equipment including a closed-circuit television system for the medical school and microfilm storage systems in the libraries. According to the present timetable, the master plan will be completed in June 1975 and a tender for the prime contractor will be issued in January 1976; the medical school will be separately tendered. It is hoped that the entire structure will be completed in January 1979. Later, a second plan may be implemented for constructing a School of Engineering, including a petroleum institute. Interested firms should contact Dr. Riyadh al-Naquib, Chief Engineer, Kuwait University, Kuwait.

JAMAICA—The Jamaica Industrial Development Corp. (JIDC), a Government of Jamaica statutory body, will build a 40,000 sq. ft. **industries complex** on Salt Spring Rd., beginning mid-1974. JIDC Executive Chairman, Wesley Wainwright, said the complex would provide self-contained units for small industries in the area in an effort to stimulate growth of light industries. For further information contact: Executive Chairman, Jamaica Industrial Development Corp., 4 Winchester Rd., Kingston 10.

JAMAICA — Lincoln Properties Ltd. is **building 37 luxury-type, three-bedroom, two-bathroom units** as part of the development of lands occupied by the Mona Great House in a suburban area of Kingston. These units, to be built in clusters, are to be completed in March 1975. A second phase of the development will be the **construction of 106 apartments.** U.S. suppliers of top quality bathtubs, wash basins, toilet bowls and ancillary fixtures should contact: Developers; Lincoln Properties Ltd., Mona Great House Hotel, Mona Rd., Kingston 6, Tel: 927-6183. Architects; Design Collaborative, 3 Dumfries Rd., Kingston 10. Contractors; Balam Construction Co., 1 Bradley Ave., Kingston.

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